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### TWENTY-FOURTH ANNUAL REPORT

OF THE

# STATE BOARD OF HEALTH,

OF THE

## STATE OF RHODE ISLAND,

FOR

THE YEAR ENDING DECEMBER 31, 1901,

AND INCLUDING
THE REPORT UPON THE REGISTRATION OF

## BIRTHS, MARRIAGES, AND DEATHS IN 1900.



PROVIDENCE, R. I.
E. L. FREEMAN COMPANY, STATE PRINTERS.
1907.

### MEMBERS

OF THE

## RHODE ISLAND STATE BOARD OF HEALTH.

#### Post Office Address.

ALBERT G. SPRAGUE, M. D., PresidentRIVER POINTKENT COUNTY.
SAMUEL M. GRAY, C. E
JOHN C. BUDLONG, M. D
REV. GEORGE L. LOCKEBristolBristol County.
ALEXANDER B BRIGGS, M. D
RUFUS E. DARRAH, M. DNewportNewport County.
GARDNER T. SWARTS, M. D

GARDNER T. SWARTS, Secretary.

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To the Honorable the General Assembly:

In compliance with the General Laws, the Annual Report of the State Board of Health is hereby respectfully submitted.

GARDNER T. SWARTS,

Secretary.

## GENERAL REPORT.

The work of the State Board of Health during the year has been a continuation of the study of the various conditions pertaining to the public health, especial use being made of the more recent methods of diagnosis and investigation which have been made available during the past few years.

#### CONTAGIOUS DISEASES.

Monthly reports of the number of cases of communicable diseases which have occurred in the various towns, including scarlet fever, diphtheria, and typhoid fever, have been continued. This makes it possible for comparison of the comparative prevalence of any of these diseases in any of the towns or throughout the State. These records were begun in the year 1894, and thus comparison of increase or decrease may be made. The local health authorities are yearly giving more intelligent attention to this class of work, and the control of these diseases has been more thoroughly systematized.

#### WATER SUPPLIES.

There has been no change in the system of water supplies of the State since the previous report.

The city of Providence has made several attempts to obtain a system of filtration for the purification of its water supply; but owing to differences of opinion in regard to the manner in which this should be accomplished, the adoption of any plan has been made impossible.

The supply of Woonsocket continues the same. The water-shed is closely guarded, and is completely controlled by the city by owner-

ship of the entire water-shed. Legal control of this supply is the only public law which has ever been enacted for the protection of drinking-water in this State.

Although the enlarged reservoir of the Newport Water Company has given an increased available supply, yet the constantly increasing demand and the limited water-shed require the utmost economy to be exercised to avoid unnecessary waste.

The Bristol Water Company continues to supply the towns of Bristol and Warren. The endeavor of the town of Bristol to purchase the entire system has been in the hands of a master of arbitration for several years, and there appears little prospect of a change of ownership at present. The quality of the water remains the same. The water-shed is shallow, and the storage also. The chance of contamination is extremely slight, but increase of population and industries will in time cause danger, and depends upon the surface washings from fields occupied by cattle. The high color and woody taste remain of the same intensity.

The water supply of the city of Pawtucket, which supplies a large number of the surroundings towns and villages, still maintains its superior quality. Although filtered through a coarse gravel or pebble and charcoal bed, yet this probably removes little but the coarser matters, which are held in suspension. It does not serve to remove any of the dangerous elements which might find their way into the river from careless use of mill privy vaults. A certain amount of inspection of the banks of the river is maintained, and any possibility of contamination is corrected as soon as discovered.

There exists at one point on the stream a mill which has its socalled tight privy-box so located that an overflow from this might be carried into the stream in time of heavy rains.

#### EXAMINATION OF WATER SUPPLIES.

The regular inspection of the banks of the Pawtuxet river for existing pollutions or possible intent to contaminate the river through desire to dispose of refuse, or by ignorance, has been continued by the inspectors engaged by the city of Providence, and under the direction of the commissioner of public works of that city. The fact remains, however, that there is always the possibility of the river being contaminated by some member of the population in that distriet placing noxious matter in the stream. The last prevalence of typhoid fever, connected with the water supply, was traced to contamination placed in the river by attendants of a typhoid patient. To thoroughly dispose of the excrement, and to insure its removal from the premises, the stools of the patient were all dumped into the river. Manufactories upon the stream have large quantities of dye-stuffs to dispose of. An endeavor is made to filter or precipitate the suspended matters in these wastes. The result is more or less successful, but at times, owing to the necessity of cleansing the clogged filter, it is alleged that the wastes are allowed to go free into the stream, thereby heightening the color of the supply, if not possibly admitting other filth which may prove injurious to those ingesting the water.

A semi-monthly chemical analysis of the water is made by the city of Providence, the sample being taken from the intake at the Pettaconset pumping-station, and also a bacteriological and chemical analysis is made by this board, every two weeks, of samples taken at the villages of Hope and Washington, above points of pollution, as well as of a sample taken from the Pettaconset pumping-station, at the point where the water is taken from the river, and at the tap in the laboratory located in the centre of the city of Providence.

This data has been obtained for several years, and now proves of great value to the city of Providence in determining the comparative values of the waters now used as compared with the supply at previous times. It also makes possible a comparison of the quality of the supply as found before and after pollution. As is to be expected, the water received at the Pettaconset pumping-station (and which is supplied to the city through the reservoir at Sockanosset and thence through pipes to the city) shows a greatly inferior quality from that

taken from the two points above any source of pollution, namely, at Hope and Washington.

Although this has been stated many times, and is in full knowledge by the board of public works and by the council of the city of Providence, yet no attempt has been made to correct this condition. The joint special committee of the common council, appointed to report upon the means at hand for the purification of the supply, replied that it was not only desirable but necessary that the water be purified before being delivered to the consumers, and that it was possible to do this by means of either sand filtration or by mechanical filtration, but that mechanical filtration was to be preferred, and has recommended it to the council, on account of its lower first cost, its simplicity in operation, its perfect control in cleaning, and from its non-dependence upon severe changes in the weather during the winter months.

Opposition to the process of mechanical filtration was made by certain physicians, an account of the presumed possibility of the alum, used in the process as a precipitant or coagulant, getting into the filtered water and being a source of danger to the public. While this objection was not supported by any data or facts in regard to the danger of the use of alum in this manner, yet the sentiment against its use prevailed with the common council; and while the endeavor to establish such a plant was defeated, yet no attempt was made to introduce and pass a resolution recommending that sand filtration be adopted. The city was therefore allowed to drift along, supplying a contaminated water to its consumers, with the possibility of an epidemic occurring at any time.

The East Providence Water Company supplies a portion of the town of East Providence, the water being taken from the Ten Mile river at Hunt's Mills. This river, as stated in a previous report, passes through a populous district and receives the washings of the water-shed from fields which are more or less fertilized. In addition, the stream receives the wastes from sewers and waste-pipes from factories and from the town of Attleboro, Mass. The number of

persons contributing to this contamination is estimated at 3,500. Dye-stuffs and acid washings from dye-houses and jewelry manufactories add to the pollution. It becomes necessary either to abandon this supply or to cause the nuisances in the form of pollution to be abated, or to purify the contaminated water before delivery to the consumers.

As stated in previous reports, attention was given to this matter, inspections were made, communications sent to the State Board of Health of Massachusetts asking for relief from the contaminations, and it was replied from that board that nothing could be effected by them. The owners of the water company were warned as to the continued use of the water without purification, and they gave the subject immediate attention. A mechanical filtration plant has been established, and has been in operation since February 26th, 1899.

Periodical examinations of the supply and of the filtered water from this plant have been made by the board, both chemically and bacteriologically. The change of the condition of the water for the better has been marked. No amount of coagulatory chemicals has found in the effluent or filtered water, while the filter has maintained the bacterial efficiency which was obtained during the series of tests conducted during the year 1899 and published in the report for that year. The results of the examinations made during this year will be found in another part of this report.

#### EXAMINATION OF SPUTUM FROM CASES OF SUSPECTED TUBERCULOSIS.

The free examination by the board of all samples of sputum received from cases of suspected tuberculosis, for physicians only, has been continued with gratifying results. By this means a physician is assisted in making an early discovery of the presence of this disease and is able to give to his patient more prompt and assiduous attention. The patients are at times made aware of the fact that they are suffering from this disease while in its incipiency, and are warned at once to obtain for themselves such treatment as may be available.

The public receives the benefits from this work by the greater care of the patient to avoid indiscriminate expectoration, thus reducing in a great measure the opportunities of spreading the disease. Money spent by the State in this manner is a good investment.

#### EXAMINATION OF CULTURES IN CASES OF SUSPECTED DIPHTHERIA.

The examinations of the secretions of the throat and the growths therefrom upon a nutrient blood serum, for physicians, in cases suspected to be diphtheria, have been continued with the same advantage to the physician, the public, and the health officer as in previous years. Many cases of simple pharyngitis presenting no clinical symptoms of diphtheria have been found to contain the organisms which produce this disease; the corroboration of the bacteriological diagnosis being confirmed later by the appearance of the membrane and the train of symptoms to be found in diphtheria. This system of control was commenced by this board in 1894, Rhode Island being the first State to establish the system as a State, the city of New York being the pioneer health department in this matter.

#### APPROPRIATIONS.

An annual appropriation of \$6,000 was made at the January session of the legislature for a continuance of the work of the board. The increase in the amount from two years previous was made necessary in order to carry out the work of the chemical laboratory and to make it possible for the board to make certain experimental research in connection with the workings of several sewage disposal plants being operated by cities and towns.

The data acquired from the latter study is of value in determining for other cities and towns, and for manufacturing plants, the most advisable means of disposing of sewage and manufacturing wastes.

A special appropriation of \$1,000 was made by the legislature for the special use of investigation and prevention of diphtheria. A like appropriation for the examination of sputum and study of tuberculosis was also made.

#### PERSONNEL OF THE BOARD.

The term of membership of Dr. Alexander B. Briggs, member of the board from Washington county, expired by limitation January 31, 1901.

Governor Charles D. Kimball, at the January session of the General Assembly, with the advice and consent of the senate, re-appointed Dr. Briggs for a term of six years from January 31, 1901.

# SECRETARY'S REPORT.

# TOWN SANITATION.

1901



### REPORTS FROM TOWNS,

IN RELATION TO SANITARY IMPROVEMENTS, ETC.

It has been observed, in the previous issues, that a complete annual report of a State Board of Health properly includes an account of the measures taken each year by the municipal authorities, corporations, or individuals for the promotion of the health of the communities under their respective supervision or control. order, therefore, to ascertain the facts in relation to such measures, and for the purpose of presentation in this report as in the reports heretofore issued, and in the continuance of the design to keep well informed of all proceedings throughout the State on the part of town or city councils or any form of municipal authority in the appointment of health officers or boards of health, and in the direction of improvements which have in view and seem to promise the promotion of public health by the abatement of nuisances or the removal of unsanitary conditions and surroundings, or by the introduction of water for general use, or construction of sewers, or the establishment of other public works which may not only be of great public utility and convenience but also serve in some measure, large or small, in the prevention of disease, the secretary has, as heretofore, solicited replies from the town and city clerks of the several towns and cities, or other municipal officers, in answer to questions proposed in a circular sent for that purpose.

It is designed and hoped that a connected history may thereby be secured of all sanitary improvements of a public character in all parts of the State, from year to year; and the gradual awakening of the citizens of the different towns to the necessity of sanitary public measures thereby be shown; and also whatever intelligent appreciation of such necessity, and whatever public spirit in existence in the towns there may be, may be known as manifested by the readiness with which needed sanitary measures are adopted.

The following is the form of circular sent at close of the year 1901:

#### CIRCULAR No. 130.

Office of Secretary of State Board of Health,

State House,

Providence, R. I., Jan. 1, 1902.

To the Town Clerk:

It is, by statute law, made the duty of the secretary of the State Board of Health to make inquiries of town or city clerks, or of the clerks of local boards of health, in regard to the general health and sanitary condition of the towns, and also in regard to measures taken for the improvement of the same, as may be seen by the following section from the

#### Public Statutes, Chapter 83.

"Sec. 6. The secretary of the said board shall make inquiry, from time to time, of the clerks of town and local boards of health, and practicing physicians, in relation to the prevalence of any disease, or knowledge of any known or generally believed source of disease, or causes of general ill-health, and also in relation to the proceedings of the said boards of health in respect to acts for the promotion and protection of the public health, and also in relation to diseases among domestic animals, in their several towns and localities, respectively; and the said clerks of town and local boards of health and said practicing physicians shall give such information in reply to said inquiries, of such facts and circumstances as have come to their knowledge."

In order to make complete the annual report of this board to the General Assembly, the secretary would respectfully ask your co-operation by answers to the following questions:

1. Has any work for the promotion of public health been contemplated or

completed in your town by the town authorities, or by private enterprise, during the year? If any, please state what.

- 2. If by introduction or extension of water service for general use, please state what proportion of the population, by estimation, was supplied with the same at the end of the year.\*
- 3. If city or town has sewage system, state the aggregate length of sewers, by estimation or otherwise, and about what proportion of the population has drainage connected with them at the end of the year.\*
- 4. If by new ordinances in abatement of nuisances, or for any sanitary purpose, please send copy of same; also state how far, to your best knowledge, all the sanitary ordinances have been enforced. Copies of town ordinances especially desired.
- 5. Has your town any legal board of health beside the town council? If so, please give the names of the officers of the same.
  - 6. Please give the names of the health officers of your town.
- 7. Has gratuitous vaccination been provided in your town during the past year? What proportion of the population was vaccinated, according to your best knowledge?
- 8. Have undertakers promptly sent in their returns of death? Please give names of any who do not. (See Public Statutes, Chap. 85, Sec. 1.)
- 9. Do clergymen make returns of marriages promptly each month, as required by Public Statutes, Chap. 85, Sec. 4?

Thanking you in advance for your assistance, I am,

Yours truly,

GARDNER T. SWARTS,

Secretary.

N. B.—The town or other clerk should charge a remunerative fee for replying to the above circular, and present to the town council or board of health, it being a service required by law.

<sup>\*</sup> If not known by the person replying, please state where or of whom such information may be obtained.

#### BRISTOL COUNTY.

#### BARRINGTON.

- 1. Complaint of the pollution of a stream at Drownville by the Annawamscutt Mills was made to the town council, and an examination and investigation was made by that body and steps taken to protect the public health in that vicinity. We trust that satisfactory results have been obtained.
- 2. There has been no extension of the public water service of this town during the year.
  - 3. This town has no sewage system.
- 4. There have been no new sanitary ordinances enacted during the year. Those in force have never been better enforced than now. (See contagious disease ordinance, 1897, p. 10.)
  - 5. This town has no legal board of health other than the town council.
- 6. Charles H. Bowden declined to serve another term as health officer, and Fred H. Devere, M. D., was elected in his place.
- 7. Gratuitous vaccination was provided for children during the year. Most of them who availed themselves of the same were school children, as none are allowed to attend school without a physician's certificate.
  - 8. Undertakers have promptly made returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

FREDERICK P. CHURCH, Town Clerk.

#### BRISTOL.

- 1. Nothing special for the promotion of the public health has been contemplated during the year. Ordinances relating to sanitary matters have been rigidly enforced.
- 2. All the compact part of the town and about one-half the outlying districts are supplied by the public water service.
- 3. This town is putting in a complete system of sewers under an act passed by the General Assembly.
  - 4. No sanitary ordinances have been enacted during the year.
  - 5. This town has no legal board of health other than the town council.
  - 6. Thomas F. Head, health officer.

- 7. Gratuitous vaccination has been provided during the year.
- 8. Undertakers respond promptly.
- 9. Clergymen respond promptly.

HERBERT F. BENNETT, Town Clerk.

#### WARREN.

- 1. Nothing special for the promotion of the public health has been done during the year.
- 3. This town has no public sewage system. Several streets have sewers laid by private parties.
  - 4. No sanitary ordinances have been enacted during the year.
  - 5. This town has no legal board of health other than the town council.
  - 6. George L. Drown, health officer.
- 8. The death returns are generally sent in with promptness by a majority of the undertakers.
  - 9. Clergymen are not always prompt in making returns of marriages.

CHARLES B. MASON, Town Clerk.

#### KENT COUNTY.

#### COVENTRY.

- 1. Nothing for the promotion of the public health has been done during the year.
  - 5. This town has no legal board of health other than the town council.
  - 6. John Winsor, M. D., health officer.
- 7. Gratuitous vaccination has been provided during the year, and about one-fifth of the population has availed itself of the same.
  - 8. Undertakers are not all prompt in making returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

GEORGE B. PARKER, Town Clerk.

#### EAST GREENWICH.

1. Nothing for the promotion of the public health has been contemplated during the year.

- 2. There are about 500 water taps in town, and fully 64 per cent. of the population is connected therewith.
- 3. The approximate length of sewers in this town is 6,335 feet. This affords drainage to 125 estates, 75 per cent. of which have connections made. The population of the area drained is about 700.
- 4. No sanitary ordinances have been enacted during the year. Those already in force have been well enforced as far as is known. (See health ordinances, report of 1894, p. 27; and 1900, p. 15.)
  - 5. This town has no legal board of health other than the town council.
  - 6. Elbridge G. Carpenter, M. D., health officer.
- 7. Gratuitous vaccination has been provided during the year, and according to physicians' returns filed at this office, 301, or about .108 of the population, have availed themselves of the same.
  - 8. Undertakers are prompt in making returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

George A. Loomis, Town Clerk.

#### WEST GREENWICH.

- 1. Nothing for the promotion of the public health has been done during the year.
  - 2. This town has no public water service.
  - 3. This town has no sewage system.
  - 4. No sanitary ordinances have been enacted during the year.
  - 5. This town has no legal board of health other than the town council.
  - 6. This town has no health officer.
  - 7. Gratuitous vaccination has not been provided during the year.
  - 8. Undertakers are prompt in making returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

OTHO TARBOX, Town Clerk.

#### WARWICK.

- 1. Nothing for the promotion of the public health has been done during the year.
  - 2. This town has no public water service.
  - 3. This town has no sewage system.

- 4. No new sanitary ordinances have been enacted during the year. (Contagious disease ordinances, see report of 1893, p. 45.)
  - 5. This town has no legal board of health other than the town council.
  - 6. Albert G. Sprague, M. D., health officer.
  - 8. Undertakers have made prompt returns of deaths.
  - 9. Clergymen are not as prompt as desirable in making returns of marriages.

JAMES T. LOCKWOOD, Town Clerk.

#### NEWPORT COUNTY.

#### JAMESTOWN.

- 1. The extension of the town sewers is the only work for the promotion of the public health done during the year.
- 2. Two-thirds of the population of this town are supplied by the public water service.
- 3. Two-thirds of the population of this town are connected with the sewers. The aggregate length of sewers in this town is four and a half miles.
- 4. No new sanitary ordinances have been enacted during the year. The present ones are not as well enforced as they should be. (Health laws, see report of 1893, p. 46; also 1894, p. 29; 1898, p. 15; 1900, p. 16.)
  - 5. This town has no legal board of health other than the town council.
  - 6. Gideon Latham, health officer.
- 7. Gratuitous vaccination was provided in this town during the year, and about one-eighth of the population availed itself of the same.
  - 8. Undertakers have made prompt returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

WILLIAM F. CASWELL, Town Clerk.

#### LITTLE COMPTON.

- 1. Nothing for the promotion of the public health has been done during the year.
  - 2. The water service of this town consists only of wells and eisterns.
  - 3. This town has no sewage system.
- 4. No new sanitary ordinances have been enacted during the year. (Contagious disease ordinances, see report 1898, p. 16.)

- 5. This town has no legal board of health other than the town council.
- 6. John G. Hathaway, M. D., health officer.
- 7. Gratuitous vaccination was provided in this town during the year, and about ten per cent. of the population availed itself of the same.
  - 8. Undertakers have made prompt returns of deaths.
  - 9. As a general rule, elergymen make prompt returns of marriages.

JOHN B. TAYLOR, Town Clerk.

#### MIDDLETOWN.

- 1. No extended work has been done in this town during the past year calculated to promote or protect the public health of the people dwelling therein.
- 2. There has been little, if any, extension of water service. The Newport Water Co. continues to furnish water to a limited number of families.
- 3. This town has no system of sewage. In a few instances sink drains and cesspools have for some years been turned into the highways.
- 4. During the year no new ordinances were enacted. Ordinances passed in former years have not been rigorously enforced. Most of the precautions taken to prevent the spread of contagious diseases were by private families under the direction and without the aid of the town officer. (Contagious disease ordinances, see report of 1893, p. 48.)
  - 5. The town council is the only board of health.
  - 6. George E. Ward, health officer.
- 7. During November gratuitous vaccination was provided by the town council and Dr. C. F. Barker, of Newport, was employed for that purpose. The number of vaccinations reported by him was 125.
  - 8. Undertakers have generally made prompt returns of deaths.
- 9. But few marriages are solemnized in this town. Those which do take place here are promptly returned.

ALBERT L. CHASE, Town Clerk.

#### NEWPORT.

No reply from the city clerk.

5. The board of health of the city of Newport is composed of five members. The report of this board will be found under the division of reports from health officers.

#### NEW SHOREHAM.

- 1. Nothing special for the promotion of the public health has been done during the year.
  - 6. Hamilton A. Mott, health officer.
  - 7. Gratuitous vaccination was not held during the year.
  - 8. Undertakers make prompt returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

EDWARD P. CHAMPLIN, Town Clerk.

#### PORTSMOUTH.

No reply from the town clerk.

#### TIVERTON.

- 1. Nothing for the promotion of the public health has been done during the year.
  - 2. This town has no public water service.
  - 3. This town has no sewage system.
- 4. No new ordinances have been enacted during the year. (Contagious disease ordinance, see report of 1900, p. 19.)
  - 5. This town has no legal board of health other than the town council.
  - 6. Edward P. Stimson, M. D., health officer.
- 7. Gratuitous vaccination was provided for at the last meeting of the council but has not as yet been commenced.
  - 8. Undertakers make prompt returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

A. LINCOLN HAMBLY, Town Clerk.

#### PROVIDENCE COUNTY.

#### BURRILLVILLE.

- 1. Nothing for the promotion of the public health has been done during the year.
  - 2. This town has no public water service.
  - 3. This town has no sewage system.

- 4. No new ordinances have been enacted during the year. The health officer has sharply looked after all public nuisances. (Contagious disease ordinances, see report of 1897, p. 20.)
  - 5. This town has no legal board of health other than the town council.
  - 6. John W. Clavin, health officer.
- 7. Gratuitous vaccination was provided by the town council during the year, and many took advantage of the same. I should say that about 20 per cent. of the population were so vaccinated. It is impossible to state how many paid for vaccination by their own physicians.
  - 8. Undertakers make fairly prompt returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

EDGAR A. MATHEWSON, Town Clerk.

#### CENTRAL FALLS.

- 5. This city has no legal board of health other than the board of aldermen.
- 6. Charles F. Sweet, M. D., health officer.
- 7. Gratuitous vaccination was provided during the year, and 977 persons availed themselves of the same.
  - 8. Undertakers make prompt returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

C. FRED CRAWFORD, City Clerk.

#### CRANSTON.

- 1. Nothing for the promotion of the public health has been done during the year.
  - 2. The public water supply of this town is that of the city of Providence.
  - 3. This town has no sewage system.
  - 6. D. S. Latham, M. D., and John Bigbee are the health officers of this town.
- 7. Gratuitous vaccination was provided during the year, but the proportion of the population vaccinated is unknown to me.
  - 8. Undertakers make prompt returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

DANIEL D. WATERMAN, Town Clerk.

#### CUMBERLAND.

- 1. Nothing for the promotion of the public health has been done during the year.
  - 2. This town has no public water service.
  - 3. This town has no sewage system.
- 4. No new ordinances have been enacted during the year. (Contagious disease ordinance, see report of 1893, p. 53.)
  - 5. This town has no legal board of health other than the town council.
  - 6. Raynor Woodhead, M. D., health officer.
  - 7. Gratuitous vaccination was provided during the year.
  - 8. Undertakers make prompt returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

JOHN F. CLARK, Town Clerk.

#### EAST PROVIDENCE.

- 1. Nothing for the promotion of the public health has been done during the year.
- 4. No new ordinances have been enacted during the year. (Contagious disease ordinances, see report of 1893, p. 54.)
  - 5. This town has no legal board of health other than the town council.
  - 6. Mason B. Wood, health officer.
- 7. Gratuitous vaccination was provided during the year, and according to the records 150 person availed themselves of the same.
  - 8. Undertakers make quite prompt returns of deaths.
- 9. Clergymen are not quite as prompt as desirable in making returns of marriages.

WILLIAM E. SMYTH, Town Clerk.

#### FOSTER.

- 1. Nothing for the promotion of the public health has been done during the year.
  - 5. This town has no legal board of health other than the town council.
  - 6. Henry Arnold, M. D., health officer.

- 7. Gratuitous vaccination was not provided during the year.
- 8. Undertakers make prompt returns of deaths.
- 9. Clergymen make returns of marriages promptly.

EMORY D. LYON, Town Clerk,

#### GLOCESTER.

- 1. Nothing for the promotion of the public health has been done during the year.
  - 2. This town has no public water service.
  - 3. This town has no sewage system.
- 4. No new sanitary ordinances have been enacted during the year. All previous ordinances have been well enforced.
  - 5. This town has no legal board of health other than the town council.
  - 6. George A. Harris, M. D., health officer.
- Gratuitous vaccination was provided during the year, and 406 persons availed themselves of the same.
  - 8. Undertakers have made returns of death promptly.
  - 9. Clergymen are generally prompt in making returns of marriages.

FRANK F. DAVIS, Town Clerk.

#### JOHNSTON.

- 4. (Contagious disease ordinances, see report of 1896, p. 20.)
- 5. The board of health of this town is composed of Ralph H. Shaw, M. D., Hiram Kimball, and William H. Mathewson.
  - 6. Ralph H. Shaw, M. D., health officer.
  - 7. About 150 persons were vaccinated gratuitously during the year.
  - 8. Undertakers make prompt returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

STERRY K. LUTHER, Town Clerk.

#### LINCOLN.

No reply from the town clerk.

4. (Contagious disease ordinances, see report of 1896, p. 25.)

#### NORTH PROVIDENCE.

- 1. Nothing for the promotion of the public health has been done during the year.
- 2. There has been no extension of the public water service of this town. Very few are supplied by it.
  - 4. No new ordinances have been enacted during the year.
  - 5. This town has no legal board of health other than the town council.
  - 6. John B. Corbett, M. D., health officer.
  - 7. Gratuitous vaccination was not provided during the year.
  - 8. Undertakers make prompt returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

THOMAS H. ANGELL, Town Clerk.

#### NORTH SMITHFIELD.

- 1. Nothing for the promotion of the public health has been done during the year.
  - 2. This town has no public water service.
  - 3. This town has no sewage system.
  - 4. No new ordinances have been enacted during the year.
  - 5. This town has no legal board of health other than the town council.
  - 6. John B. Greene, health officer.
- 7. Gratuitous vaccination was provided during the year and was accepted very generally by the townspeople.
  - 8. Undertakers make prompt returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

CHARLES E. SEAGRAVE, Town Clerk.

#### PAWTUCKET.

- 2. Over 90 per cent, of the population of this city is supplied by the public water service.
- 3. About 69 per cent. of the population of this city is connected with the sewage system.
- 4. (Ordinances for removal of nightsoil and cesspools, and registration of deaths, see report of 1898, p. 23.)

The following extracts are taken from the report of the Board of Public Works:

Population (U. S. Census, 1900), 39,231.

Area of city, 8.940 square miles.

Total length of improved streets, 82.69 miles.

Total length of mains connected with the Pawtucket Water Works, 148.62 miles.

Total length of sewers, 46.68 miles.

Total length of electric railways, 23.52 miles.

Capacity of pumping engines, 12,000,000 per 24 hours.

Water pressure on Main street square, 110 pounds per square inch.

The general condition of the water supply showed an improvement over last year, owing mainly to the fact that the "Happy Hollow" pond contained enough water at all times so that no portion of the bottom of the same was exposed to the rays of the sun.

At the Diamond Hill reservoir the water was never more than four feet below the top of the dam, while at certain periods during the preceding year the water fell fourteen feet below the dam.

The filter at station three should be renovated, as the charcoal has become useless as a filtering material. Charcoal is quite expensive, and I would recommend that some other material, cheaper and equally effective, be used.

SUMMARY OF PUMPING AT NOS. 1, 2, AND 3 STATIONS FOR THE YEAR ENDING SEP-TEMBER 30, 1901.

Total expenses for the year	\$21,834.03
Total number of gallons pumped into reservoir	2,526,517,462
Total cost of raising 1,000,000 gallons into reservoir	\$8.60
Total cost of raising 1,000,000 gallons one foot high	.032
Average daily consumption of water in U. S. gallons	6,927,445
Maximum daily consumption of water in U. S. gallons	9,809,688
Minimum daily consumption of water in U. S. gallons	3,134,940

#### Respectfully submitted,

JOHN H. WALKER,

Chief Engineer.

#### FILTER FIELDS.

The 12.79 miles of sewers of the Moshassuck river district all deliver sewage to the filter fields, which purify all the dry-weather flow of the territory drained by these sewers and some of the storm-water as well. The 587 connections which have been made with the sewers of this section serve a population of over

4,400, and the amount of sewage treated at this plant has averaged 114,345 gallons per day during the past year. The maximum amount being about 170,000 gallons per day during December, 1900.

The analyses show this sewage to be of considerable strength, and the amount of sludge derived from it is annually increasing.

One of the difficult problems connected with all systems of sewage purification is the separation, treatment, and disposal of the sludge contained in the sewage. Our experimental work with a septic tank furnishes interesting figures for comparison with the figures obtained from the treatment of sewage by sedimentation and intermittent filtration during previous years.

Six years' experience with settled sewage has given an average of 3.14 cubic yards of sludge per million gallons of sewage treated, but recent figures, made during the months of August, September, and October, 1901, have shown that the amount of sludge has increased to 4.87 cubic yards per million gallons of sewage and that it weighs about 43.75 pounds per cubic foot. This makes the weight of sludge now handled per million gallons of sewage about 2.87 tons.

The amount of sludge collected in the septic tank has averaged, during both trials, 5.126 cubic yards per million gallons. The specific gravity of the sludge collected during the last experiment was 1.02, which would make the average weight of sludge that must be handled after treating sewage by the septic process 4.41 tons per million gallons. This latter sludge contains 79.11% of moisture and is more difficult to handle and much more offensive than the sludge which is raked from sand beds.

It is, however, only fair to say, in this connection, that with a septic tank adapted to the needs of this method of sewage purification, this sludge could probably, with the addition of more sewage, be pumped to some disposal area instead of shoveled into barrows and wheeled from the tank as we were obliged to do. The comparison of the nature and amount of this sludge is, however, of value.

Sludge from settled sewage, dried on sand beds, resembles patches of tarred paper a square foot or more in area and can be readily raked from the surface of such beds in dry weather. Sludge from the septic tank is a muddy and offensive mass of matter, difficult to handle in barrows and probably difficult to dry out on any sand beds on which it could be pumped, unless it could be spread upon the sand in a thin layer.

Our experience has been, that during warm weather sludge from settled sewage turned upon sand beds is more easily handled and disposed of than the sludge from a septic tank.

It is probably true that a septic tank of greater depth than that in which we were obliged to perform our experiments might accomplish a greater reduction of

sludge than we were able to obtain, but detailed and reliable data upon this subject seem to be lacking, at least in this country, where we are obliged to treat domestic sewage of considerable strength.

It seems probable that during the winter months, when the sludge from settled sewage will freeze on the surface of sand beds, will accumulate in considerable quantities and can only be removed after warm weather has arrived, the septic tank may offer a better solution of the sludge problem than such exposed beds of sand. We propose to experiment along this line the coming winter.

#### THE WORK OF THE SEPTIC TANK.

The experimental work with a septic tank and contact beds has been continued during the year with practically a repetition of the results outlined in the report of last year. For a connected and comprehensive study of these experiments it may be well to review the work of last year and to cover the whole period during which the sewage was treated in the septic tank.

On January 13, 1900, one of the receiving tanks located at this plant, which had heretofore been used for the purification of sewage by intermittent filtration, was turned into a septic tank. Although this tank was shallower than a good septic tank should be, it was the only thing available for experimental work and had to be taken. Its dimensions are 30x100x4 feet in depth and it will store sewage to a depth of three feet.

For a period of ten months, from Jan. 13, 1900, to Nov. 13, 1900, all the sewage of the Moshassuck river district was passed through this tank. The tank was then drawn down, the accumulated sludge was measured, loaded into barrows, and wheeled to an adjacent field where it was composted and used the following spring by a farmer for the fertilization of crops.

On November 20, 1900, sewage was again turned through this tank, and it was again continuously used as a septic tank until August 7, 1901, when the sewage was again drawn off, the accumulated sludge measured and taken from the tank and composted.

The following comparison of results obtained from the two experiments are of interest:

	1st.	2d.
Period of service as septic tank	. Jan. 13, 1900, to Nov. 13, 1900.	Nov. 20, 1900, to Aug. 7, 1901.
Number of months experiment lasted	. 10	8 mo. 18 d.
Number of gallons of sewage passed throughtank		29,420,303
Number of cubic yards of sludge found in the tank at the end of the experiment		142.58

1st.	2d.
5.428	4.840
81.75	79.1
0.99	1.012
5.023	4.577
3.155	2.930
1.868	1.641
0.878	0.629
47	38.1
3.14	
4.87	
41.3	42.7
	5.428 81.75 0.99 5.023 3.155 1.868 47 3.14

# CONTACT BEDS NO. 14 AND NO. 15.

As stated in the report of last year, two contract beds, each 15 feet x 15.5 feet x 4 feet deep, were constructed to be operated in connection with the septic tank.

Two rows of 2-inch tile underdrains placed five feet apart were laid on the bottom of each bed and were covered with clean gravel of assorted sizes to a depth of eight inches. On top of this gravel in bed No. 14 three feet and four inches of crushed stone of the size known as chestnut were placed. In bed No. 15 three feet and four inches of soft coal cinders which would pass through a screen of one-eighth inch mesh were deposited.

The effluent from the septic tank was turned on bed No. 14 at the rate of 509,000 gallons per acre from March 12, 1900, to Oct. 1, 1900. From Oct. 1, 1900, to Oct. 1, 1901, the rate has been 400,000 gallons per day. On the basis of 365 days in the year these rates become respectively 433,333 and 394,446 gallons per acre per day.

This septic effluent was also run on bed No. 15 at a rate of 526,000 gallons per acre until Oct. 1, 1901. From March 12, 1900, to Oct. 1, 1900, this was equivalent to 465,185 gallons per acre per day for 365 days in the year, and since that time the equivalent has been 414,814 gallons per acre per day for the full year. This reduction in rate per day, on the basis of seven days in the week, is accounted for by the periods of rest which have been given these beds. Neither bed is dosed on Sunday, and they were both rested for a period of eleven days in August, 1901. Both beds have also had several short rest periods, of one or two days, on several occasions during the year.

Careful measurements have shown that both of these beds have lost considerable of their original capacity. This has been due in part to a breaking down of the materials of which they are composed, to a settling together and to a gradual silting up.

In bed No. 14 the reduction in capacity due to settling together has been 11.1% and in bed No. 15, 21.7%. The loss of capacity due to silting up from the retention of mineral and organic matter contained in the septic effluent has been 18.83% in the case of bed No. 14, and 22.48% for bed No. 15. It is thus seen that the total loss of capacity in bed No. 14 has been about 30% and in bed No. 15, about 44%.

While the average results of seventeen analyses of the effluent from bed No. 15 show .9 parts of nitrates per 100,000 parts, it is noticeable that the nitrates gradually increased from .016 parts in May, 1900, to 2.41 parts in January, 1901; that they dropped to 0.91 parts in May, 1901, and have since gone down to .015 parts in July, 1901.

The effluent from bed No. 15 has been turned upon bed No. 16 at a rate of 730,000 gallons per acre and on bed No. 17 at a rate of 825,000 gallons per acre for six days in the week, with a much farther reduction of the ammonia and an increase in the nitrates, as is shown by the tables of analyses.

Beds No. 16 and No. 17 are two small contact filters constructed by filling two

galvanized iron cans, each twenty inches in diameter and six feet high, with filtering material; No. 16 with large pieces of coke and No. 17 with einders similar to those in bed No. 15.

This experimental work is of great value to us as indicating what results can and can not be expected from certain methods of sewage purification.

The amount of sewage delivered to the filter fields in the Moshassuck district is annually increasing, and the amount of solid matter contained in this sewage seems to be on the increase as well. The enlargement of this plant will be necessary in a very short time, and the problem of how to make the most of a limited area is a vital one.

Our experimental work has attracted considerable interest among engineers and municipal officers, and we have had many visitors to inspect our plant. The Rhode Island State Board of Health in attending to the regular examination and analysis of samples of sewage and effluent has rendered us very considerable assistance.

Arcrages of Chemical Examinations made by the State Board of Health from November 20, 1900, to October 1, 1901.

(Parts per 100,000.)

	Охтеви Солзимер.	13.29	8.28	1.96	3.76	2.99	2.29	1.97
Nitrogen	Nitrites.	:	:	7.61 1.937 .0265	9.32 0.174 .0030	7.69 0.898 .0139	.0730	6290.
Nitra	Nitrates.	:	:	1.937	0.174	0.898		2.46
	Сньовіче.	9.78	:				7.98 1.89	7.28
	In Suspension.	0.626	0.181	3.30 0.1383 0.1169 0.0214	3.39 0.3622 0.2920 0.0702	2.80 0.2941 0.2268 0.0673	1.55 0.2236 0.1536 0.0700	1.20 0.1798 0.1340 0.0458 7.28 2.46 .0679
Ammonia.	Albuminoid.	0.663	6.75 0.739 0.558 0.181	0.1169	0.2920	0.2268	0.1536	0.1340
Ami	Total.	7.38 1.29	0.739	0.1383	0.3622	0.2941	0.2236	0.1798
	Free.		6.75	3,30	3.39	2.80	1.55	1.20
00N 10N.	Fixed.	92.46 54.39 38.07	:	27.4	:	:	:	
RESIDUE ON	Loss on lgnition.	54.39	:	16.1	:	:	• :	<u>:</u>
REEVA	Total.	92,46	59.32	43.5	:	:	:	:
		Sewage, average of 28 analyses	Effluent from Septic Tank, average of 26 analyses	Effluent from Septic Tank and Sand Filters, average of 17 analyses	Effluent from Septic Tank and Contact Filter No. 14, average 7 analyses	Effluent from Septic Tank and Contact Filter No. 15, average 17 analyses.	Effluent from Septic Tank and Contact Filters Nos. 15-16, av. 14 analyses.	Effluent from Septic Tank and Contact Filters Nos. 15-17, av. 14 analyses

Purification Effected by Septic Tank and Several Filters.

# (Parts per 100,000.)

MED.	Per cent. removed.	37.75	85.2	71.7	6.77	8.0 2.0 8.1.8	85.2
Oxygen Consumed.	Effluent.	8.28	1.96	3.76	2.99	2.29	1.97
Oxyge	ремяке:	12.29	13.29	13.29	13.29	13.29	13.29
IONIA	Per cent. removed.	17. 21	89.3	71.9	27.77	S. 5.	86.1
Albuminoid Ammonia	Effluent.	0.739	0.1383	0.3622	0,2941	0.2236	0.1798
ALBU	гемяке:	1.29	1.29	1.29	1.29	1.29	1.29
eta.	Per cent, removed	5.0	55.3	54.1	62.1	79.0	588
Free Ammonia.	ЕЩиепр	6.75	3.30	3.39	9.80	1.55	1.20
FRI	Бешляе.	7.38	7.38	7.38	7.38	7.38	7.38
		Purification effected by Septic Tank	Purification effected by Septic Tank and Sand Filters	Purification effected by Septic Tank and Filter No. 14	Purification effected by Septic Tank and Filter No. 15	Purification effected by Septic Tank and Filters Nos. 15-16.	Purification effected by Septic Tank and Filters Nos, 15-17.

Table showing Working of Beds from December 1, 1894, to October 1, 1901.

Number of Bed.	Cubic yards of poor sand removed from Dec. 1, 1894, to Oct. 1, 1901.	Cubic yards of studge removed from Dec. 1 1894, to Oct. 1, 1901.	Average depth in inches of poor sand removed from Dec 1, 1894, to Oct. 1, 1901.	Total number of gallons of sewage let on.	Cubic yards of poor sand removed for each 1,000,000 gallons of sewage.
1 2 3 4 5 5 6 7 7 8 9 10 11 12 13 13 14 15	108 123 102 96 178 165 120 103 101 122 107 118 120	101.97 97.69 90.21 93.31 32.79	6 6 5 5 44 5 4 4 4 5 5 4 4 4	6,361.117 6,537,031 5,714,198 5,199,762 23,607,471 15,351,914 16,784,260 15,821,392 17,525,796 17,939,835 18,304,925 18,608,612 1,352,070 1,405,906	16, 98 18, 82 17, 85 18, 46 7, 54 10, 75 7, 15 6, 51 5, 76 6, 80 5, 84 6, 26 6, 44
	1,563	415.97		189,362,871	8.25

Began using beds 1-2-5-6-7 regularly on Dec. 1, 1894.

Began using beds 8-9-10-11 regularly on Jan. 1, 1895.

Began using beds 3-4 regularly on Aug. 1, 1895.

Began using beds 12-13 regularly on Nov. 1, 1895.

Began using bed 6 as a sludge bed in August, 1898.

Began using experimental beds 14-15 on March 8, 1900.

Began using experimental cans 16-17 on Oct. 3, 1900.

Average number of cubic yards of poor sand removed per acre of filtering area, 663.

Average depth in inches of poor sand removed per acre of filtering area, 2.33.

Average number of cubic yards of sludge removed per 1,000,000 gallons of sewage from Dec. 1, 1894, to Jan. 13, 1900, and from Aug. 7, 1901, to Oct. 1, 1901, 3.14.

All beds were cleaned twice this year, once in April and once in August, when the poor sand was scraped from the surface.

Tank "A" was used as a septic tank from Jan. 13, 1900, to Aug. 7, 1901.

Began using tanks "A-B" again as settling tanks Aug. 7, 1901.

Cleaned tank "A" Nov. 13, 1900. Amount of sludge accumulated in 10 months, 147.48 cubic yards, or 5.428 cubic yards per 1,000,000 gallons of sewage treated.

Cleaned tank "A" again Aug. 12, 1901. Amount of sludge accumulated in 9 months, 142.58 cubic yards, or 4.846 cubic yards per 1,000,000 gallons of sewage treated.

Amount of poor sand removed from beds during operation of septic tank between Jan. 13, 1900, and Aug. 7, 1901, 481.48 cubic yards, or 8.48 cubic yards per 1,000,000 gallons of sewage let on beds.

The beds were cleaned in May, 1899, and were not cleaned again until May, 1900, when 222.4 cubic yards were removed. Assumed 1-3, or 74.1 cubic yards to have accumulated from Jan. 13, 1900.

All the beds have now been underdrained. In laying these underdrains more poor sand was removed from the surface than otherwise would have been taken, in order not to mix the good sand from the trenches with the poor sand on the top.

The following table shows the number of gallons of sewage received and treated at the plant during the year:

Month.	Gallons of Sewage.	Average Gallons Per Day.
October, 1900 . November, 1900 . December, 1900 . January, 1901 . February, 1901 . March, 1901 . May 1901 . June, 1901 . June, 1901 . June, 1901 . July, 1901 . August, 1901 . September, 1901 .	3,641,093 3,248,938 5,201,488 4,694,393 3,747,226 3,428,837 1,103,766 2,758,187 2,506,221 3,862,666 3,552,252 3,930,936	117,467 108.298 169,725 151,432 133,830 110,608 35,605 88,974 83,541 124,602 114,589 131,031
	41,736,003	

Average number of gallons per day has been 114,345.

Number of Bed.	Area (aeres).	Number of doses of ordinary sewage.	Average quantity of ordinary sewage applied at each dose (gallons).	Number of doses of heavy sewage.	Average quantity of heavy sewage applied at each dose (gallons).	Total quantity of sewage applied to beds during the year (gallons).	Equivalent average daily quantity applied per acre (gallons).*
1	. 126 . 132 . 133 . 123 . 307 . 211 . 180 . 157 . 176 . 178 . 183 . 219 . 218 . 0054 . 0054	46 42 58 61 113 181 192 201 192 235 233 250 240 282 282	13,154 13,828 13,896 12,804 30,700 21,100 18,000 17,600 17,800 18,300 21,900 21,900 21,500		10,080 10,560 10,640 9,840	\$57,100 \$23,680 1,008,140 958,170 3,469,100 3,827,360 3,456,000 4,183,000 4,183,000 4,263,900 5,475,000 5,232,000 777,397 817,456	18.634 17,097 20,767 21,341 30,954 49.693 52,595 55,666 53,428 64,382 63,830 68,490 65,750 394,446 414,814

<sup>\*</sup> Figured on the basis of 365 days in the year.

#### WATER WORKS.

During the year a large amount of data in connection with our water works system has been compiled. The large map covering the whole territory of collection and distribution has been completed and mounted in a roller case where it is handy for reference. Additions and changes have been made to the maps and books which show the details of pipe and gate locations. Samples of water from the Abbott Run stream have been sent to the State Board of Health for analysis.

I desire to call attention to the importance of keeping complete and accurate records of the yield of the Abbott Run stream. While we do not at the present time appear to greatly need this data, the time is not far distant when it will be very desirable to know just what has been the amount of water that this stream has supplied annually and what it can be safely counted upon to yield in the future. As intimated at the beginning of this report, the value of such records depends upon their continuous collection over a long period of time and to the care and attention given to this collection. Records gathered thoughtlessly and without careful and painstaking study are likely to be faulty, and, if so, they are worse than no records at all. Their use occasions errors in the solution of the problems to which they may be applied, which are all the more serious in that they appear to be founded upon an accurate and indisputable record of facts.

# RECORDS OF RAINFALL.

Among the additions made to the working apparatus of this department has been the installation of an automatic rain gauge on the roof of the building in which the office is located. This gauge was originally set up at the Diamond Hill reservoir, but it was decided that more accurate and valuable records would be obtained if some alterations should be made in the gauge itself and if it should be located as at present. The recording chart was accordingly changed from a record of seven days to one of twenty-four hours, thereby giving better records of heavy rates of rainfall.

A record of the maximum rate of rainfall for any storm, together with the duration of that maximum rate, is of greater value in engineering work than is a record of the total precipitation. The total precipitation of a storm of three or four hours' duration may not have exceeded one inch, but there may have been a period of ten, fifteen or twenty minutes when the rate of rainfall may have been as great as two or three inches per hour. It is these maximum rates of rainfall, their intensities, duration and frequency which become important factors in the calculation of the sizes of sewers.

With our automatic gauge we have also located a standard pail gauge, as a check on the total precipitation. In other parts of the city and on our water

works system we have pail gauges, and the following table shows the record of these different gauges for the same storms. It will be noticed that columns are set apart for the record of maximum rates and their duration, and the suggestion is offered, that if similar items were recorded in the annual reports of other Boards of Public Works valuable data would be collected and much assistance given to municipal officers who are intrusted with the solution of these problems.

TOTAL AMOUNT OF PRECIPITATION FOR EACH MONTH.

Молтн.	Masonie Building, Automatic gauge.	Filter Fields, Standard gauge.	Pumping Station No. 3, Automatic gauge.	Diamond Hill, Standard gauge.
1900.				
October		3.18	3.24	3.40
November	3.92	4.46	4.40	4.73
December	2.36	2.74	2.60	2.81
1901.				
January	1.53	1.96	2.10	1.75
February	0.31	0.83	1.21	0.79
March	7.27	7.81	7.67	8.84
April	6.54	7.45	7.28	8.97
May	6.24	6.60	6.87	6.82
June	0.98	0.97	0.86	1.22
July	3.65	3.46	2.83	5.83
August	1.60	1.72	2.40	3,75
September	3.65	3.86	4.04	4.35
Total precipitation for year		45.04	45.50	53.26

# ELEVATIONS ABOVE MEAN HIGH TIDE, PAWTUCKET RIVER.

Gauge at Masonic Building	140 feet
Gauge at Filter Fields	40 feet
Gauge at Pumping Station No. 3	100 feet
Gauge at Diamond Hill	220 feet

GEORGE A. CARPENTER, City Engineer.

- 5. This city has no legal board of health other than the board of aldermen.
- 6. Byron U. Richards, M. D., health officer.
- 8. Undertakers make prompt returns of deaths.
- 9. Clergymen make returns of marriages promptly.

SAMUEL H. ROBERTS, City Clerk.

# PROVIDENCE.

## EXTRACT FROM THE REPORT OF THE CITY ENGINEER.

The population of the city is estimated at 181,000, and the population supplied in the suburbs is estimated at 12,700. Total population supplied, 193,700.

The number of meters in use in the city is 17,182, and the number of meters in use in the suburbs is 1,362. Total number of meters in use, 18,544.

The number of service pipes in use in the city is 20,489, and the number of service pipes in use in the suburbs is 1,697. Total number of service pipes in use, 22,186.

The average daily use of water per service for the year 1901 has been 484 gallons.

The average daily use of water per capita for the year 1901 has been 55 gallons. The water receipts for 1901 were \$578,869.07.

The net cost of maintenance for 1901 was \$108,563.84.

The net cost of the water works construction from November 8, 1869, to January 1, 1902, is \$6,470,093.35, upon which there has been a revenue for water sold of \$10,012,033.04.

The monthly and annual and the average daily and monthly consumption of water in gallons, including waste and leakage, during the year is shown by the following table:

Months.	Consumption per month.	Average monthly consump- tion.	Average daily eonsumption per month.	Average daily consumption for the year.
January. February March April May June. July August September October November. December	312,692,170 294,549,201 316,230,476 267,707 139 311,538,422 344,903,129 372,655,454 362,449,005 334,632,328 338,294,582 320,858,689 341,654,947		10,086,844 10,519,614 10,200,983 8,923,571 10,049,627 11,496 771 12,021,144 11,691,903 11,154,411 10,912,728 10,695 290 11,021,127	
TotalAverages	3,918,165,542	326,513,795		10,734,700

The maximum consumption of water for any one day during the year 1901 was 15,779,000 gallons.

The amount of water consumed shown in the above table includes the supplying of about thirty-seven and six-tenths miles of distribution pipes, located in adjoining towns, as well as supplying the greater part of the State Institutions at Cranston. Dexter Asylum has continued to use a considerable quantity of water, as usual, which, together with the use of water in the cold months through small blow-offs at bridge crossings and elsewhere, to prevent freezing, helps to keep up the consumption.

The following table shows the average daily consumption of water in gallons for each year during the last twenty-five years:

Average Daily Total Consumption of Water, in gallons, for each Year, from January, 1877, to December, 1901, inclusive.

Years.	For the year.	Year.	For the year.
1877	2,492,032	1890	6,743,047
1878	2,702,404	1891	7,272,070
1879	3,110,279	1892	8,058,414
1880	3,547,264	1893	9,128,563
1881	3,716,937	1894	9,904,434
1882	3,665,427	1895	8,905,085
1883	4,143,798	1896	9,106,623
1884	. 4,083,373	1897	8,635,067
1885	4,730,556	1898	9,148,993
1886	4,822,125	1899	9,562,058
1887	4,939,982	1900	10,131,489
1888	5,518,691	1901	10,734,700
1889	5,786,961		

Examinations for electrolysis have been made and the conditions found to be much improved. The section on South Water street, where formerly there was a strong positive district, has changed so that now the current is comparatively light, and in some places nearly neutral. Several services and some meter bolts have had to be replaced on meters located in wet places, and some six-inch pipe in Elm street, which was examined last year and found to be much softened, has been removed on account of other work. Also in Butts street, where it was necessary to cut out for hydrants, the pipe was found to be considerably softened.

#### WATER WORKS STATISTICS FOR THE YEAR 1901.

In Accordance with Form Adopted by the New England Water Works Association.

Providence Water Works, Providence County, R. I.

Pouplation of Providence	181,000
Estimated population supplied in suburbs	12,700

The water is pumped from the Pawtuxet river into a storage reservoir located upon a hill about one mile distant. From this reservoir it flows into the city by gravitation, directly supplying a second storage reservoir within the city limits, and also that portion of the city which is of sufficiently low elevation to be served by gravitation. To supply that part of the city of too high an elevation to be served by these reservoirs, a third reservoir is located in the town of North Providence. The water is pumped by supplementary pumping machinery from the second reservoir above mentioned or from the mains, into the high service reservoir. This supplementary pumping machinery can also supply the high service district, if the reservoir should be out of service, by pumping directly into the mains.

In addition to the regular distribution pipes there is an independent high pressure fire system (deriving its supply from the high service), for protecting an area of about one-half of one square mile in the centre of the business portion of the city.

#### PUMPING.

- 1. Builders of pumping machinery:
- a. Worthington Duplex engine, built by Henry R. Worthington. (Out of service.)
  - b. Cornish engine, built by Paulding, Kemble & Co.
  - c. Corliss Vertical engine, built by George H. Corliss.
  - d. Worthington Triple Expansion engine, built by Henry R. Worthington.
  - e. Nagle High Service engine, built by the Providence Steam Engine Co.
  - f. Holly High Service engine, built by the Holly Manufacturing Co.

Worthington	Corliss,	Holly .	Nagles
Triple		$_{ m High}$	$\mathbf{High}$
Expansion.		Service.	Service.

2. Description of coal used,

	Bituminous,	Bituminous.	Anthracite egg.	Anthracite egg.
b.	New River and	New River and	Reading hard and	Reading free
	George's Creek	George's Creek	Reading free	burning.
	Cumberland.	Cumberland.	burning.	
c.	Price, per gross to	on delivered,		
	\$4.20	\$4.12	\$5.04	\$5.04

d.	Percentage of as	sh,		
	9.9	10.4	16.4	15.4
e.	Wood, price per	cord,		
	\$4.50	\$4.50	\$4.00	\$4.00
3.	Coal consumed	for the year, in pot	ınds,	
	5,690,300	*280,500	†775,913	‡121,159
4.	[Pounds of wood	d consumed] ÷ 3 =	= equivalent amount	of coal in pounds,
	833	4,750	§1,376	206
5.	Total equivalen	t coal consumed for	the year, $(3) + (4)$ in	n pounds,
	5,691,133	285,250	777,289	121,365
6. Total pumpage for the year in gallons, with allowance for slip,			or slip,	
	3,891,304,283	165,074,474	476,290,901	67,525,560
7.	Average static l	head against which	pumps work, in feet,	
	171.49	171.53	112.04	111.12
8.	Average dynam	ic head against wh	ich pumps work, in fo	et,
	176.92	177.03	126.61	112.61
9.	Number of galle	ons pumped per po	und of equivalent coa	l (5),
	684	579	613	556
10.	Duty = Gallon	s pumped (6) x 8.34 ( Total fuel	lbs.) x 100 x dynamic her	ad (8).
	100,888,000	85,441,200	64,702,900	52,253,800
			NG STATION EXPENSE	
FOR 7	THE LOW SERVICE	e, and \$5,737.28 fc	R THE HIGH SERVICE.	
11.			o low service reservoir	<i>'</i>
			(pumped twice, \$4.7)	
	\$10.55)	· · · · · · · · · · · · · · · · · · ·	······································	\$15.25

<sup>\*</sup>Not including 50,950 pounds when engine was not in service.

<sup>\$</sup>Not including 154 pounds of wood when engine was not in service.

12. Per million gallons raised one foot high (dynamic), low ser-				
vice, the cost was.	\$0.0265			
High service (pumped twice, \$0.0265 + \$0.0845), the cost was	\$0.1110			
W. Net cost of works to date	6,470,093.35			
X. Bonded debt at date	6,009,000.00			
Y. Value of sinking fund at date	984,261.28			
Z. Average rate of interest	\$0.03762			
CONSUMPTION.				
1. Estimated total population of district at date	193,700			
2. (Estimated population on lines of pipe, ) Number not takin	g city water so			
3. (Estimated population supplied, small that total used.	population is			
4. Total number of gallons consumed for year	3,918,165,542			
5. \( \text{Passed through meters,} \) Estimated about	out 60 pen cent.			
6. Percentage of consumption metered, \( \)				
7. Average daily consumption in gallons	10,734,700			
8. Gallons per day to each inhabitant	55			
10. Gallons per day to each tap (distribution 22)	484			
distribution.—mains.*				
1. Kind of pipes used				
2. SizesFrom 6				
3. Extended				
4. Discontinued.				
5. Total now in use†	51.0547 mnes.			
to settlement, repairs costing	\$124.13			
8. Small distribution pipes, less than four inches, total length.	None.			
9. Fire hydrants added‡	34			
10. Number of hydrants now in use, ‡ (a) fire	1,920			
(b) watering cart hydrants or street sprinklers	63			

<sup>\*</sup> Not including high pressure fire service.

<sup>†</sup>Includes 10,084 teet of 36-inch pipe, 561 feet of 30-inch pipe, and 695 feet of 24-inch pipe, which are force mains, and 19.66 feet of 30-inch pipe, and 19,478.46 feet of 24-inch pipe, which are used both as a force and delivery main.

<sup>‡</sup> Not including high pressure fire service, or private hydrants.

11.	Stop gates added	(1)))	80
12.	Number now in use		3,478
13.	Stop gates less than four inches		None.
14.	Number of blow-off gates		32
15.	Range of pressure on mains at centre of city f	for day and	
	night	64	to 73 lbs.
	HIGH PRESSURE FIRE SERVICE.		
Kind (	of pipes used		Cast iron.
			nd 24-inch.
Total	now in use*	5.	5698 miles.
Hydra	nts added		None.
Numb	er now in use		92
Stop g	ates now in use		31
Numb	er of blow-off gates		4
Pressu	re on mains, at center of business portion of city,	for day and	
night			
	SERVICES.		
16.	Kind of pipe	14 inches, an	d east iron.
17.	Sizes	From ½ t	o 10 inches.
21.	Services added		701
22.	Number now in use		22,186
25.	Meters added		731
26.	Number now in use		18,544
27.	Percentage of services metered		84
29.	Elevator supplies added		4
30.	Number now in use, 145 of 4 and 6-inch, and 20 st	maller sup-	
	plies connected to house elevators.		

This department has been in charge of Irving S. Wood, Assistant Engineer.

The usual flow of the Woonasquatucket river, from Olneyville to the Atwells avenue bridge, is clear and clean enough to be free from any charge of being a nuisance; but in the area bounded by Atwells avenue, Eagle street and the river a serious case of pollution exists which can be removed only by the construction of a sewer in Kinsley avenue from Eagle street to Harris avenue, and thence across the river to the sewer in Promenade street.

The condition of the flow of the Moshassuck river is very foul, and although the construction of sewers along its course in the city limits will benefit it to some

<sup>\*</sup> No connections of any description except for city fire hydrants.

extent, yet they will not avail much so long as the manufacturing establishments in Pawtucket and Lincoln are permitted to use its course as a common sewer. A short investigation will convince any one that the main causes for the contamination of our rivers and harbor at present are situated outside the city limits, and some measure should be adopted to abate them if we wish to reap the full benefit of the money already spent by the city towards purifying the rivers within its territory.

The construction of the precipitation tanks and buildings and the installing of the necessary machinery and fixtures, excepting plates for the presses, was completed early in the year, and on the 17th day of April sewage was turned into the tanks and the work of precipitation begun.

The work at first was largely experimental, as sewage sludge has peculiarities of its own for each different community. Plates of two thicknesses had been ordered sufficient for four presses, and the works were started up to find from trial which thickness of plate would be best adapted to our conditions, and also to test the machinery.

It was found that the plates referred to produced a sludge cake too thick to press properly, and it was necessary to order a new set of plates of a different thickness for the remainder of the presses. Delay in furnishing these made it necessary to suspend operation for a time, but by September, sufficient plates having arrived to fill several presses, the work was again commenced and has been continued to date. The whole number of plates have now been delivered, and it will soon be possible to work the plant to its full capacity. So far the result as to effluent and sludge has been very satisfactory. The plant is in charge of Mr. Julius W. Bugbee, formerly of the Worcester Precipitation Works, as superintendent and chemist.

A view of the press room is shown in the accompanying plate.

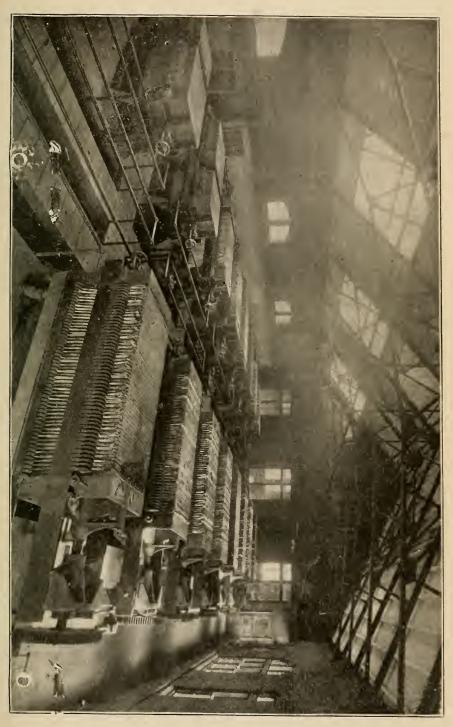
### SCITUATE.

No reply from the town clerk.

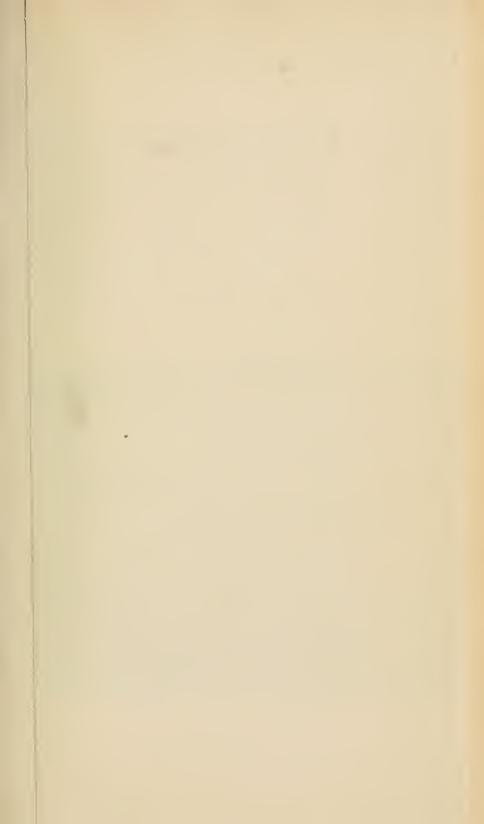
#### SMITHFIELD.

- 6. Jenckes Smith, health officer.
- 7. Gratuitous vaccination was provided during the year and about twenty-five per cent. of the population, principally school children, availed itself of the same.
  - 9. Clergymen make returns of marriages promptly.

OSCAR A. TOBEY, Town Clerk.









Precipitation Plant, from the South East.

#### WOONSOCKET.

2. About 29,000 of the population (28,204) are supplied with water from the City Water Works.

The following extracts are from the report of the water department:

SUMMARY OF STATISTICS FOR THE YEAR ENDING NOVEMBER 30, 1901.

In Form Recommended by New England Water Works Association. Woon-socket Water Works.

City of Woonsocket, County of Providence, State of Rhode Island:

Population by eensus of 1900, 28,204 (not including M	anville).
Date of construction	
By whom owned	City of Woonsocket.
Source of supply,	Crook Fall Brook.
Mode of supply	Pump to tunks

## Builders of tanks:

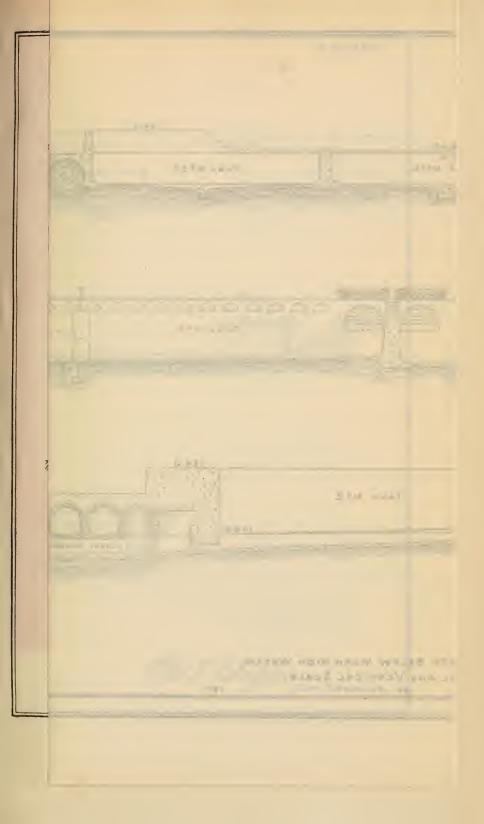
- No. 1. Cunningham Iron Works, 30 ft. high, 50 ft. diameter. 442,780 gallons.
- No. 2. Porter Manufacturing Co., 35 ft. high, 50 feet diameter. 515,310 gallous.
- No. 3. E. Hodge & Co., 30 ft. high, 76 ft. diameter.........1,020,705 gallons.

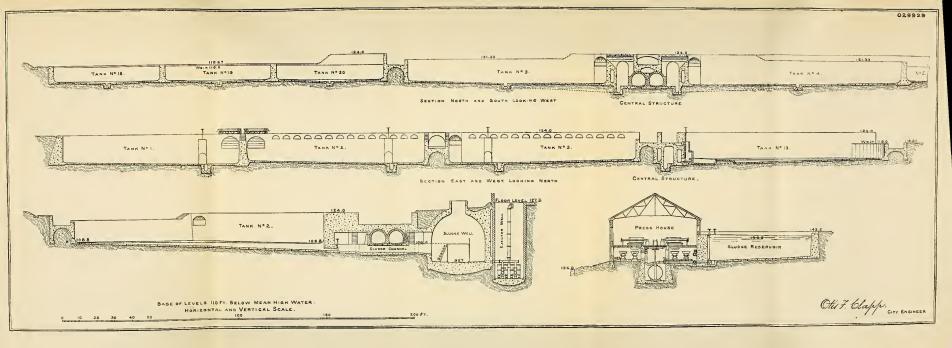
# PUMPING.

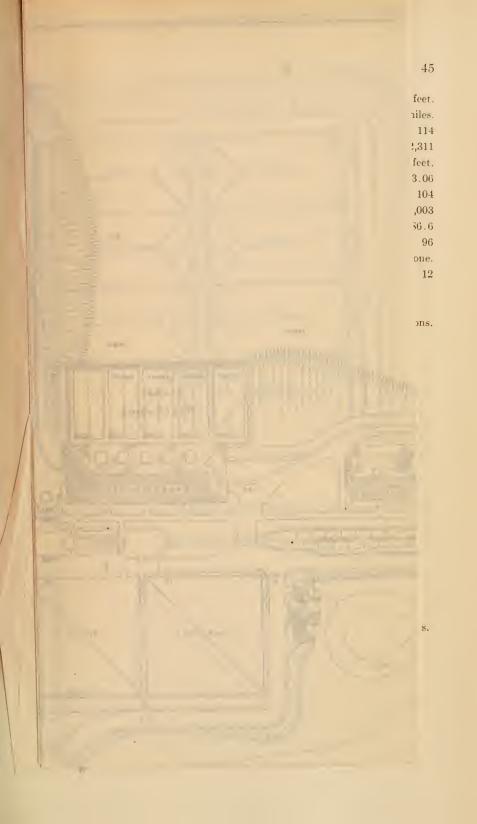
- 1. Builders of pumping machinery, H. R. Worthington, Deane Steam Pump Co.
- Description of fuel used: (a) kind, bituminous; (b) brand of coal, Pocahontas, George Creek; (c) average price of coal per ton, delivered, \$5.14 (2,200); (d) percentage of ash, 6.2; (e) wood, price per cord, \$3.00.
- 3. Coal consumed for the year, 1,370,750 lbs.
- 4. [Pounds of wood consumed]  $\div 3 =$  equivalent amount of coal, 320 lbs.
- 4a. Amount of other fuel used, none.
- 5. Total equivalent coal consumed for the year = (3) + (4) 1,371,070 lbs.
- 6. Total pumpage for the year, 341,709,743 gallons with allowance for slip.
- 7. Average static head against which pumps work, 237,937 feet.
- 8. Average dynamic head against which pumps work, 239.461 feet.
- 9. Number of gallons pumped per pound of equivalent coal (5), 249.
- 10. Duty=\frac{Gallons pumped (6) \times 8.34 (lbs.) \times 100 \times dynamic head (8)}{Total fuel consumed (5).} = 49,773,545.

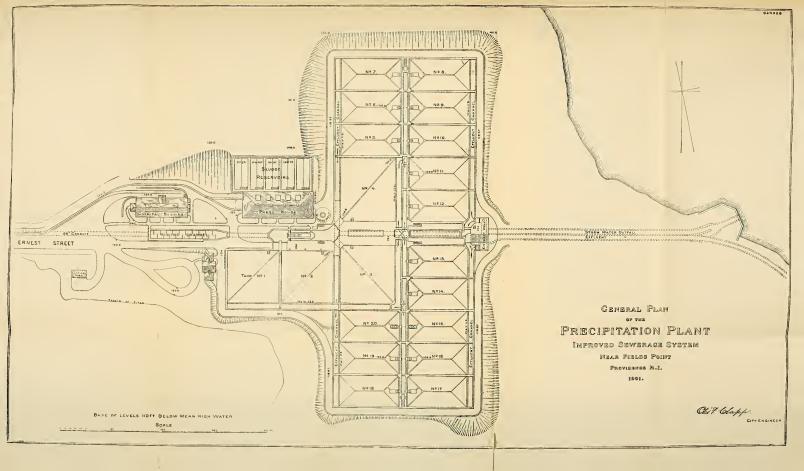
  Cost of pumping, figured on pumping station expenses, viz.: \\$5,226.56.

1	STATE BOARD OF HEALTH.	[1901.	
12.	Per million gallons raised one foot (dynamic)	.063	
	Cost of pumping, figured on total maintenance, viz.: \$29,239.03		
13.	Per million gallons pumped	\$85.57	
14.	Per million gallons raised one foot (dynamic)	. 36	
	CONSUMPTION.		
1.	Estimated total population at date, 33,500 (including Manville extension).		
2.	Estimated population on lines of pipe	33,000	
3.	Estimated population on lines of pipe	33,000	
3. 4.	Total consumption for the year		
5.	Passed through meters		
6.	Percentage of consumption metered	per cent.	
7.	Average daily consumption	7 mallona	
8.	Gallons per day to each inhabitant		
9.	Gallons per day to each minablant	27.9 $28.3$	
10.	Gallons per day to each tap	405	
10.	Ganons per day to each tap	400	
	DISTRIBUTION.—MAINS.	•	
1.	Kind of pipe	Cast iron.	
2.	Sizes From 4-inch t	o 20-inch.	
3.	Extended4,661 feet during	the year.	
4.	Discontinued		
5.	Total now in use	885 miles.	
6.	Cost of repairs per mile	\$5.71	
7.	Number of leaks per mile	.45	
8.	Length of pipes less than 4 inches diameter	No miles.	
9.	Number of hydrants added during the year (public and		
	private)	11	
10.	Number of hydrants (public and private) now in use	559	
11.	Number of stop gates added during year	10	
12.	Number of stop gates now in use	502	
13.	Number of stop gates smaller than 4-inch	None.	
14.	Number of blow-off gates	15	
15.	Range of pressure on mains at center of town50 lbs. t	o 120 lbs.	
SERVICES.			
16.	Kind of pipeLead and	cast iron.	
17.	Sizes§-inch	to 6-inch.	
26.	**		









19.	Discontinued	N	o feet.
20.	Total now in use	. 6.666	miles.
21.	Number of service taps added during the year		114
22.	Number now in use		2,311
23.	Average length of service	15.6	6 feet.
24.	Average cost of service for the year		\$13.06
25.	Number of meters added		104
26.	Number now in use		2,003
27.	Percentage of services metered		86.6
28.	Percentage of receipts from metered water (B÷C)		96
29.	Number of motors and elevators added		None.
30.	Number now in use		12
	TOTAL YEARLY CONSUMPTION FROM 1885 TO 19	01.	
1885		3,884,669 g	allons
		924,946	"
		8,507,585	cc
		1,158,335	"
		,152,979	
1890		),325,893	"
		,770,368	44
1892		3,527,852	"
1893		,208,187	4.6
1894		,086,916	"
1895		5,293,830	4.4
1896		,429,005	**
1897	271	,236,620	"
1898	269	,565,878	"
1899		,241,979	**
1900		,074,454	"
1901		,715,564	44
	RAINFALL AT PUMPING STATION.		
Decemb	Der	2.81 i	nches.
	y		**
	ry		+ 6
		8.32	14
	••••••	9 51	"
•	•••••	6 92	**
June	••••	1 11	66

July	4.43 inches
August	3.32 "
September	3.98 "
October	3.09 "
November	2.80 "
Total	49 92

- 5. This city has no legal board of health other than the board of aldermen.
- 6. William C. Monroe, M. D., health officer.
- 7. Gratuitous vaccination was provided during the year, and 6,000 persons availed themselves of the same.
  - 8. Undertakers make prompt returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

WILLIAM C. MASON, City Clerk.

# WASHINGTON COUNTY.

## CHARLESTOWN.

- 1. Nothing for the promotion of the public health has been done during the year.
  - 2. This town has no public water service.
  - 3. This town has no sewage system.
  - 4. Contagious disease ordinance, see report of 1900, p. 56.
  - 5. This town has no legal board of health other than the town council.
  - 6. Milton Duckworth, M. D., health officer.
  - 7. Gratuitous vaccination was not provided during the year.
  - 8. Undertakers have made prompt returns of deaths.
  - 9. Clergymen have made returns of marriages promptly.

GEORGE C. CROSS, Town Clerk.

# EXETER.

- Nothing for the promotion of the public health has been done during the year,
  - 5. This town has no legal board of health other than the town council.
  - 6. This town has no health officer.

- 7. Gratuitous vaccination was not provided during the year.
- 9. Clergymen make returns of marriages promptly.

JOHN H. EDWARDS, Town Clerk.

# HOPKINTON.

- 1. Nothing for the promotion of the public health has been done during the year.
  - 2. This town has no public water service.
  - 3. This town has no sewage system.
- 4. No new ordinances have been enacted during the year. (Contagious disease ordinance, see report of 1894, p. 59.)
  - 5. This town has no legal board of health other than the town council.
  - 6. Henry H. Crandall, health officer.
  - 7. Gratuitous vaccination was not provided during the year.
  - 8. Undertakers make prompt returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

EDWIN R. ALLEN, Town Clerk.

# NARRAGANSETT..

- 1. Nothing for the promotion of the public health has been done during the year.
- The public water service of this district was extended during the year by 400 feet. The proportion of the population supplied, however, has not materially increased.
- 3. There has been no extension of the sewage system of this district since the last report, but the council has under consideration a modification of the present system of sewage disposal.

#### AN ORDINANCE RELATIVE TO SEWERS,

Be it ordained by the District Council of the District of Narragansett:

- SECTION 1. No person shall connect any drain or pipe with any public sewer or any appurtenance of a public sewer or maintain such connection without the permission of the district engineer.
- SEC. 2. No person shall injure any sewer or fixture, or appurtenance of a sewer, or deposit any garbage, offal, or refuse material of any kind in any eatch

basin, manhole, or other fixture of a public sewer, or remove any manhole cover without permission of the district engineer.

Sec. 3. Every person who shall violate any provision of this ordinance shall be guilty of a misdemeanor and shall pay a fine, to the treasury of the District of Narragansett, of not less than five nor more than twenty dollars.

The following regulations relative to the manner of connecting with and using the public sewers and the management and protection thereof are hereby approved and adopted by the district council of the District of Narragansett:

- 1. Applications for permits to connect with any public sewer must be made to the district engineer in a form prescribed and furnished by him at his office.
- 2. Applications must be signed by the owner of the premises to be connected, or his attorney, must state the location of the premises, the name of some drain layer to be employed, and must be made prior to the commencement of any work thereon.
- 3. Such application must include an agreement on the part of the owner to abide by all rules and regulations established by the district council in relation to public sewers and to waive any claim for damages in case of revocation as hereinafter provided.
- 4. Permits to connect with a public sewer may be revoked and annulled by the district council for such cause, at any time, as it may deem sufficient, and all parties in interest shall be held to have waived the right to claim damages on account of such revocation.
- 5. No more than one building shall be connected with a public sewer through one pipe without a special permit from the district engineer.
- 6. All drains laid in any public street or way shall be iron pipe or salt glazed vitrified clay pipe.
- 7. All drains connecting with a public sewer shall be at least 4 inches in diameter.
- 8. All drains shall be laid as nearly as possible in a straight line and grade, and any decided change in grade or direction must be made with curves or bends.
- 9. All joints on vitrified pipe shall be made tight with good cement, and on iron pipe with gasket and lead.
- 10. The inside of every drain shall be left perfectly clear and smooth, and a proper scraper shall be drawn through each pipe as laid.
- 11. A drain shall be connected only with the slant or branch mentioned in the permit for that drain, and the connection must be made in the presence of the engineer or his inspector.
- The location, material, and workmanship of all drains must be satisfactory to the district engineer.

- 13. No drain shall be laid in or under any street or public way, excepting on such grade and line and at such times as may be directed by the district engineer, and as little as possible of the trench shall be dug until the branch or slant is found.
- 14. In opening trenches on any street or public way, paving and ballast must be removed with care, the sides of the trench sheeted or braced when directed by the engineer or inspector, water or other pipes protected from injury, the trenches closed and lighted at night, and every precaution taken to prevent injury to the public during the progress of the work.

When necessary to disturb a drain in actual use, it must not be obstructed without the direction of the engineer.

- 15. The backfilling shall be thoroughly puddled or rammed, and the paving or ballast replaced in the best condition, and to the satisfaction of the engineer or inspector, within forty-eight hours after the backfilling of the trench.
- 16. Notice must be left at the office of the district engineer at least forty-eight hours before work is begun on a drain, and no material shall be used or work covered until inspected and approved by the district engineer or his authorized inspector.
- 17. Such information as the district has with regard to the position of junctions or branches will be furnished to drain layers, but at their risk as to the accuracy of the same.
- 18. Any settlement over the drain in any street or public way within one year after such drain is laid shall be repaired at the expense of the owner of the property from which said drain is laid, who shall be held liable for any accident or damage which may occur in consequence of the laying of said drain during the time the trench is open and for said period of one year after said drain is laid.
- 19. It shall be the duty of the district engineer to inspect the work done and materials used in laying sewer connections in the public highway and to keep a record of such work. He may authorize an assistant to make such inspection.

All applications for permits to connect with sewers or appurtenances must be accompanied with a fee of \$1.00 to pay the expense of keeping a record of such connection, and the person applying for such permit must pay the district engineer for inspection at the rate of 50c. per hour.

In district council of the District of Narragansett, read and passed this 20th day of April, A. D. 1896.

# A true copy, Attest:

WILLIAM H. CASWELL, District Clerk.

- 5. This district has no legal board of health other than the district council.
- 6. Solomon H. Hale, health officer.

- 7. Gratuitous vaccination was not provided during the year:
- 8. Undertakers make fairly prompt returns of deaths.
- 9. Some of the clergymen make returns of marriages promptly, but not all.

WILLIAM H. CASWELL, District Clerk.

# NORTH KINGSTOWN.

- 1. Nothing for the promotion of the public health has been done during the year.
  - 2. This town has no public water service.
  - 3. This town has no sewage system.
- 4. No new ordinances have been enacted during the year. (Nuisance and contagious disease ordinances, see report of 1896, p. 60.)
  - 5. This town has no legal board of health other than the town council.
  - 6. Harold Metcalf, M. D., health officer.
  - 7. Gratuitous vaccination was not provided during the year.
  - 8. Undertakers make prompt returns of deaths.
  - 9. Clergymen make returns of marriages promptly.

THOMAS J. PEIRCE, Town Clerk.

# RICHMOND.

- 1. Nothing for the promotion of the public health has been done during the year.
  - 2. This town has no public water service.
  - 3. This town has no sewage system.
  - 4. No new ordinances have been enacted during the year.
  - 5. This town has no legal board of health other than the town council.
  - 6. Charles A. Fuller, health officer.
  - 7. Gratuitous vaccination was not provided during the year.
- 8. Undertakers have made more prompt returns of deaths than in former years.
  - 9. Clergymen make returns of marriages promptly.

HALSEY P. CLARKE, Town Clerk.

# SOUTH KINGSTOWN.

No reply from the town clerk.

# WESTERLY.

No reply from the town clerk.

2. From the water commissioners' report the following extracts are taken showing the exceptionally good quality of the supply of water furnished this town:

"Having been requested by the secretary of the Rhode Island State Board of Health, Dr. Gardner T. Swarts, to forward each month during the year samples of the water supply of the town for analysis by the chemist of the State board, I have collected these samples at the times stated and from the places designated by Dr. Swarts, and the results of these analyses, together with a copy of letter received from D. Swarts, will be found in the appendix to this report.

"THOMAS MCKENZIE, Superintendent."

RHODE ISLAND STATE BOARD OF HEALTH.

Providence, April 9, 1901.

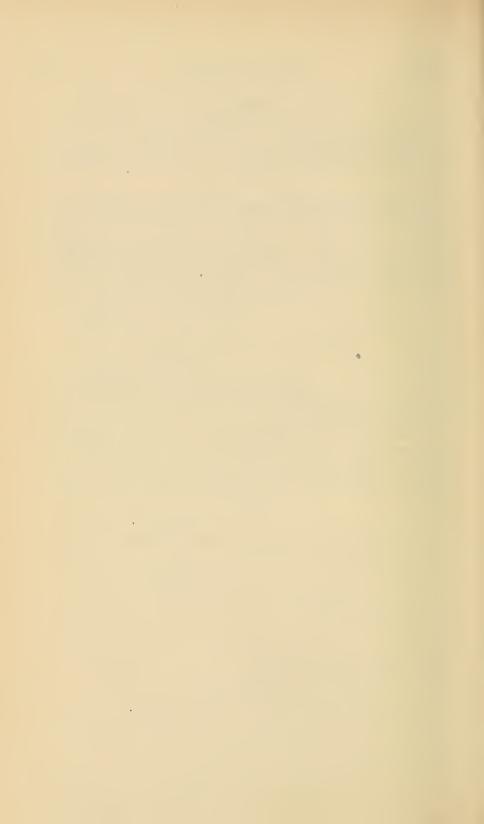
Mr. Thomas McKenzie, Superintendent Westerly Water Works, Westerly, R. I.:

DEAR SIR:—I enclose, herewith, copies of the reports of the water analyses of the Westerly water supply made by the Board of Health during the past year.

The results from a chemical standpoint show the water to be of exceptionally good quality and one of the best supplies in the state, as compared with other supplies in the state. It is also noticeable that the hardness of the water is not excessive, a condition which would be expected, considering the source of the supply.

Yours truly,

GARDNER T. SWARTS, Secretary.



# REPORTS OF

# HEALTH OFFICERS.

1901.



# CIRCULAR TO HEALTH OFFICERS.

# CIRCULAR No. 131.

OFFICE OF THE SECRETARY OF THE STATE BOARD OF HEALTH,

Providence, January 1, 1902.

To the Health Officer:

DEAR SIR:—An important feature of the annual reports of the Rhode Island State Board of Health is that of giving a connected history of the occurrence of contagious and epidemic diseases from year to year, as they may have prevailed in the different towns, whether epidemically or in a less degree, together with the location in the town (village or otherwise) and season of the year.

If the **proportion** of the **fatal** cases to the **whole number** of cases of the same **disease** could be given, the value of such reports would be very much enhanced. Such proportion can be ascertained only in such towns as by town ordinance require physicians to report all cases of such diseases as come within their charge.

An approximate proportion can, however, be given, after the subsidence of the disease, by inquiry of persons living in the immediate neighborhood of the prevalence of such disease, as to the number of the sick, or by house to house visitation where the sickness occurred, with the same inquiry, and by the comparison of the deaths with recoveries as so ascertained.

It is for the purpose of obtaining such information, in full or approximate, and also what may have been done to prevent and restrict diseases, that the questions in the inclosed circular are sent to the various health officers of the State.

To Health Officers who are not physicians, it may be said that the term epidemic, within the meaning of the questions proposed, is the prevalence of some disease to the extent of one or more persons affected with the disease to every five or six persons living in adjacent tenements or in the near neighborhood, or a smaller proportion, not less than one case of the disease in every ten or twelve of the population, extending over a large area of territory. One sick in every twelve to sixteen persons might be called a large prevalence, and one sick in

every twenty to twenty-five, a **moderate prevalence**. The number of cases of any one disease may have to be estimated, but make them as nearly correct as possible.

If, therefore, you will have the kindness to reply to the questions in the said circular, according to the best knowledge you have been able to obtain, and forward in the inclosed stamped envelope, you will favor one of the most important interests in the State, and greatly oblige.

Yours truly,

# GARDNER T. SWARTS,

Secretary State Board of Health.

# CIRCULAR No. 132.

DEAR SIR:—Replies to the following questions, as suggested in the accompanying circular (No. 131), are respectfully solicited; said replies to be made on this circular, following each question:

- 1. Name of town.
- 2. Name of health officer.
- 3. Have there been, within your knowledge, any epidemics, or any large prevalence of contagious or infectious diseases in your town during the past year? If so, of what disease or diseases? in what locality or localities? how many of each disease?\* number of deaths? and in what months of the year?

Diseases.	Locality.	No. of cases.	No. of deaths.	Months in which they occurred

- 4. Was isolation maintained or attempted?\*
- 5. What proportion of the sick, if any, were isolated?
- 6. Was any inspection of premises made, where sickness prevailed, as to the sanitary condition of the cellars, pantries, sinks, sink-drains, water-closets, if

<sup>\*</sup>According to the best knowledge obtainable.

any, cess-pools, out-house privies, distance of wells from accumulations of filth, etc., etc.? If so, please give a general statement as to whether they were sanitarily in conditions good or bad, or, if any thing or place was unusually unsanitary, give a full description. Or, if the cause of any outbreak of disease was found, please state what.

- 7. Did you make any sanitary inspections during the past year, by order of the town council or from your own option? If so, what were they and how made?
- 8. Do you know of any location in your town that seems to be particularly unhealthy to any considerable number of persons? If so, and the cause is suspected, can such cause be removed at any reasonable expense?
- 9. Do you report to your town council nuisances dangerous to the public health, or unsanitary premises within your knowledge; or of buildings unsafe for occupants in case of fire? (See Chapter 495, Section 6, Public Laws.)
- 10. Has there, to your knowledge, been any contamination of any of the water, milk, or ice supplies in your town?
  - 11. Please give names and addresses of dealers in ice in your town.

# REPORTS OF HEALTH OFFICERS

# BRISTOL COUNTY.

- 1. Barrington.—No report from the health officer.
- 1. Bristol.
- 2. Thomas F. Head, health officer
- 3. There were no epidemics in this town during the year.
- 4. In cases of scarlet fever and diphtheria the infected houses were placarded.
- 6. Inspections of premises where sickness prevailed were made and in some instances the sanitary conditions were bad, but in most cases they were found to be in good condition.
  - 7. Sanitary inspections made were mostly at my own option.
  - 8. No unhealthy localities in this town are known.
- 9. All public nuisances, unsanitary premises, etc., are reported to the town council.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
- 11. Quirk Bros., Morris Bros., John P. Reynolds and John Leahy are the ice dealers of this town.
  - 1. Warren.—No report from the health officer.

# KENT COUNTY.

- 1. COVENTRY.
- 2. John Winsor, M. D., health officer.
- 3. There were no epidemics in this town during the year.
- Isolation was made in all cases where needed.
- 5. All cases, as far as is known, were isolated.

- Inspections of premises where sickness prevailed were made and sanitary conditions usually found to be good.
- 7. Inspections of a number of cesspools, etc., in Washington, Anthony, and Quidnick were made and same were put in good condition.
  - 8. No unhealthy localities in this town are known.
- 9. All public nuisances, unsanitary premises, etc., are reported to the town council.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
- 11. Manchester Bros., Daniel Wood & Son, and Winfield Lewis are the ice dealers of this town.
  - 1. East Greenwich.
  - 2. Elbridge G. Carpenter, M. D., health officer.
  - 3. There were no epidemies in this town during the year.
- 6. Inspections of drains, eess-pools, and closets were made in all cases of sickness.
  - 7. Sanitary inspections were made upon complaint of neighbors.
  - 8. No unhealthy localities in this town are known.
- 9. All public nuisances, unsanitary premises, etc., are reported to the town council.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
  - 11. E. A. Sweet and George W. Sunderland are the ice dealers of this town,

WEST GREENWICH.—Has no health officer.

1. Warwick. No report from the health officer.

# NEWPORT COUNTY.

- Jamestown.—No report from the health officer.
- 1. LITTLE COMPTON.
- 2. John G. Hathaway, M. D., health officer.
- 3. Measles was very prevalent during the months of March and April, there being about sixty-eight cases of this disease and no deaths.

- 4. This outbreak occurred before my appointment as health officer. Quarantine was very imperfect.
  - 5. To my knowledge, none of the sick were isolated.
- None of the affected premises were inspected. The origin of the disease is unknown.
  - 7. No sanitary inspections were made during the year.
  - 8. No unhealthy localities in this town are known.
- 9. I have as yet had no occasion to report to the town council any public nuisances or unsanitary premises.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
- ·11. James L. Gray of Adamsville and James Shaw and Charles R. Wilbur of Little Compton are the ice dealers of this town.
  - 1. Middletown.
  - 2. George E. Ward, health officer.
- 3. Scarlet fever was quite prevalent during the month of December, there being about 10 cases of this disease and no deaths.
  - 4. Isolation was maintained.
  - 5. All of the sick were isolated.
  - 6. There were no inspections made of premises where sickness prevailed.
  - 7. No sanitary inspections were made during the year.
  - 8. No unhealthy localities in this town are known.
- 9. I have as yet had no occasion to report to the town council any public nuisances or unsanitary premises.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
  - 11. There are no ice dealers in this town,
  - 1. Newport.

The board of health consists of five members appointed as follows:

Rufus E. Darrah, M. D., for five years; Christopher F. Barker, M. D., for four years; S. Parker Cottrell, M. D., for three years; Robert Frame, for two years; Charles E. Lawton, for one year.

President, Christopher F. Barker, M. D.; Secretary, S. Parker Cottrell, M. D.; Clerk, Charles H. Clarke; Sanitary inspector, Robert L. Oman; Assistant inspector, George C. Shaw.

At a meeting held March 16, the board organized by electing as president Dr. C. F. Barker, and as secretary, Dr. S. P. Cottrell.

#### ANNUAL REPORT.

The board of health herewith presents its report for the year 1901. From time to time during the year the board has made reports upon various matters pertaining to the public health and its work. Although smallpox has twice invaded the city and a number of cases of typhoid fever have occurred, yet the health of the city for the year has been good. The accompanying mortality tables show the number of deaths to have been 362. This, in a population of 23,000 gives an annual death rate of 15.73 per 1,000. It must, however, be remembered that during the summer season the population of Newport is increased by several thousand people, consequently the death rate is somewhat lower than the figures indicate. The tables show a large proportion of deaths from causes incident to old age and consequently natural and unpreventable, and with one exception a small proportion from preventable diseases.

The exception is tuberculosis which has long been classed among communicable diseases. Pulmonary tuberculosis, or consumption, caused thirty-seven deaths, and other forms of tuberculosis caused six, making a total of 43, or nearly one-eighth of the whole number. The State legislature in response to an appeal from the Rhode Island Medical Society has taken steps towards the establishment of sanatoria for the purpose of controlling the spread of tuberculosis in the State, and this board has discussed and will probably recommend some measures for adoption in this city.

The number of cases of typhoid fever occurring during the year was fifty-four. Of these, in six cases the disease was contracted elsewhere, leaving forty-eight cases originating in this city. This is a very gratifying decrease from last year, when 124 cases occurred.

The occurrence of smallpox in June and again in October from different sources has already been reported to your honorable body, and account of the measures taken by the board of health to prevent the spread of the disease. In all there were fifteen cases, one in June and fourteen in October and November. Considering the number of people exposed and the length of time (10 days) that passed before the first case occurring in October was discovered by this board, it is surprising that no more cases occurred. This is to be attributed partly to the close observation that was kept over all those known to be exposed and their immediate isolation upon the appearance of symptoms, and partly to the immediate vaccination of all who had come in contact with the case. This city was probably never better protected against smallpox than now, since within the last three months more than 10,000 people have been vaccinated.

#### DISPOSAL OF NIGHT SOIL,

The only method of disposal of night soil at present available is to have it carted to some place in the outskirts of the city or in Middletown, where it is used as a fertilizer. It has been clearly proved in other cities that typhoid fever has been caused by the contamination of vegetables by night soil so used. There is still a greater danger in this method of disposal from the possible contamination of the sources of our water or ice supply.

A complaint has already been received by this board concerning the spreading of night soil upon the ground in dangerous proximity to one of these sources. If the city water supply should be contaminated in this manner the result would be an epidemic far more general than that of last year when the source of infection was found to be local. In view of these facts the board believes that the use of night soil as a fertilizer should be stopped at the earliest possible moment. It further believes that the only safe disposal of night soil is through the sewers.

## TYPHOID FEVER.

During the three months, August, September, and October, twenty-seven cases of typhoid fever have been reported. In the same months last year, eighty-two cases were reported and the disease was prevalent until late in December. With few exceptions the cases this year have been sporadic and there has been no indication of any widely operating cause. In one case the disease appeared in a group of four houses whose occupants were drinking water from the same well.

The board of health recognized as its first and most important duty the prevention, if possible, of an occurrence of last year's epidemic of typhoid fever-With this object in view a careful and systematic inspection of all premises in the section of the city where the disease prevailed last year has been made, and a great deal has been accomplished toward removing possible causes of disease. Inspections have also been made in suspected places in other parts of the city.

In that section of the city where typhoid fever was most prevalent last year, there is a cluster of tenement houses in which the sanitary conditions were found so bad that in the judgment of the board they were unsafe for occupancy without radical changes. On account of delay and unwillingness on the part of the owner to comply with the orders of the board the tenants were warned to leave and ten out of thirteen families formerly living there have already moved away, and the board understands that the owner intends, after making the premises as clean as possible, to abandon them.

The board feels justified in taking this extreme action both on account of the excessively unsanitary conditions existing and from the fact that typhoid fever has recurred in those houses regularly every summer for several years and there

seems good reason for supposing that last year's epidemic originated there. On an adjoining property similar conditions were found; the same orders were issued and have been fully carried out.

The recent experience of New Haven where an epidemic of typhoid fever was caused by the contamination of the public water supply suggested the importance of examining the water shed from which our city water is derived. As nearly the whole of this water shed lies in Middletown it comes under the jurisdiction of the State Board of Health, and the assistance of Dr. Swarts, secretary of that board, was asked. Certain unfavorable conditions were found and brought to the attention of the Newport Water Works Company. Some of these conditions have already been corrected and it is expected that the remainder soon will be.

#### SMALL-POX.

A case of small-pox occurred in the person of a servant employed in a private family and who had been in this city only a few days before being taken sick. The case was reported to the board of health on June 18th. A small house sufficiently remote was immediately rented and the patient was isolated there in the care of a nurse. Every precaution was taken to prevent the spread of the disease. Watchmen were employed and a flag placed on the house as required by the State law, and all persons who had been exposed to contagion were vaccinated, and kept a sufficient time under observation. The patient made a good recovery and no other cases have occurred. The city is to be congratulated upon the prevention of the spread of the disease.

On October 12, the attention of the board was called to a case of small-pox that had existed for ten days, and during that time as the case had not been diagnosed no effort had been made to prevent the spread of the disease. The patient was at once removed with his wife, who had already begun to show the first symptoms of the disease, to the house hired by the board for the ease that occurred in June, and a nurse was placed in charge. All those who upon investgation were found to have been exposed were immediately vaccinated and placed under constant supervision in order that the earliest symptoms of the disease might be detected. From this case, ten others have been developed and all but two of these were among those being kept under observation. With the increase in the number of cases it became necessary to employ a second nurse and a servant. It also became necessary to provide more room for the patients and a temporary building has been erected containing two wards capable of accommodating comfortably fourteen patients, besides a bathroom and rooms for attendants and disinfection. The hospital can now take twenty-four patients, if necessary, without crowding. The board deemed it wise to provide so much room because, although the time has probably passed for the development of cases from exposure

to the first case, yet it is quite possible that more may occur from exposure to some of those occurring later. Besides providing for daily examinations of all those known to be exposed the board has employed physicians to inspect the public and parochial schools and vaccinate all requiring it, has provided for free public vaccination by the city physician, and has furnished to all physicians vaccine virus free of charge. The board believes that by thus making every effort to secure general vaccination it was taking the surest means of protecting the city from the spread of the disease. The result has been extremely gratifying—the demand for virus has been so great that over nine thousand points have been used.

Of the cases that have so far occurred, four have been of a mild form, six severe, and one malignant, the patient dying on the second day after his admission to the hospital. While the presence of small-pox is a matter of grave import, and while it is yet too early to predict with any degree of assurance what the extent of its invasion will be, the spread of the disease up to the present time is no more than was expected from the beginning. Other cases may develop from exposure to those recently taken to the hospital, but they will be discovered and isolated promptly and for this reason and because of the great number of recent vaccinations the board hopes to be able to prevent an extensive spread of the disease.

#### COMMUNICABLE DISEASES REPORTED DURING THE YEAR.

Diphtheria, 33; measles, 71; scarlet fever, 46; small-pox, 15; typhoid fever, 54. Total, 219.

# For the board of health,

CHRISTOPHER F. BARKER, President.

- 2. J. W. Sampson, executive officer, board of health.
- Quarantine was absolute in all the infected cases and also in eighty-seven suspects.
- 6. The primary case having been brought from Boston, the sanitary condition of the infected houses was not taken into consideration. All were thoroughly funnigated.
- About 4,000 sanitary inspections were made during the year. These were principally questions of sewerage and out-houses.
  - 8. No unhealthy localities in this city are known.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this city.
  - 11. The Arctic Ice Company is the ice dealer of this city.

- 1. New Shoreham.—No report from the health officer.
- 1. Portsmouth.
- 2. Minot A. Steele, M. D., health officer.
- 3. There were no epidemics in this town during the year.
- 8. No unhealthy localities in this town are known.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
  - 11. William H. Tallman is the ice dealer of this town.
  - 1. TIVERTON.
  - 2. Edward P. Stimson, M. D., health officer.
  - 3. There were no epidemics in this town during the year.
  - 4. Isolation was maintained in all sporadic cases.
  - 5. All cases of measles, scarlet fever, and diphtheria were isolated.
- Inspections of premises where sickness prevailed were made and sanitary conditions usually found to be good.
- 7. Sanitary inspections were made either at my own option or by request of parties interested. In one case a well used by a number of families was found to be badly contaminated by sewerage. The consumers were warned not to use the water under penalty of illness. This well belonged to a mill corporation.
  - 8. No unhealthy localities in this town are known.
- All public nuisances, unsanitary premises, etc., are reported to the town council.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
- 11. Brownell, of Tiverton, and Peckham, of Tiverton Four Corners, are the ice dealers of this town.

# PROVIDENCE COUNTY.

- 1. Burrillville.
- 2. John W. Clavin, health officer.
- 3. An outbreak of small-pox occurred during the months of June and July. There were twenty-four of this disease, none of which, however, were fatal.

- 4. A small-pox hospital was built at once and all cases quarantined there. Several cases of scarlet fever were also quarantined.
- Inspections of premises where sickness prevailed were made, but no cause for the outbreak could be found. All places were throughly cleaned and fumigated.
- 7. Sanitary inspections were made both by council order and at my own option. Some forty sink drains, privies, cess-pools, and other nuisances were abated by me.
  - 8. No unhealthy localities in this town are known.
- All public nuisances, unsanitary premises, etc., are reported to the town council.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
- 11. George W. Lovell, of Nasonville, Charles A. Moore, of Pascoag, and Frank W. Wood, of Harrisville, are the ice dealers of this town.
  - 1. Central Falls.
  - 2. Charles F. Sweet, M. D., health officer.
- 3. As stated in previous report one fatal case of small-pox was discovered in this city in December, 1900. Many people had visited this patient, being ignorant of the nature of the disease, and as a result several other cases, two of which were fatal, ensued. There were eight cases in all during the year, five of which seem traceable to the first case. The months in which they occurred were as follows: January, five; March, two, and July, one. Quarantine was immediately established and this city at that time having no small-pox hospital, the cases were treated where they resided, every one in the house being quarantined. A small-pox hospital was erected in time to accommodate the later cases, public vaccination was carried out, and every possible means for checking the spread of the disease taken. The source of the later cases has not as yet been definitely determined.
  - 4. Isolation was maintained.
  - 5. All of the sick were isolated.
- 6. Inspections of premises where sickness prevailed were made, but sanitary conditions were found to be good.
- All unsanitary conditions, reported or unreported, are investigated and remedied.
  - 8. No unhealthy localities in this city are known.
- All public nuisances, unsanitary premises, etc., are reported to the board of health when not abated as ordered.

- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this city.
- 11. The Central Falls Ice Company and T. Deheitre are the ice dealers of this city.
  - 1. Cranston.
  - 2. Daniel S. Latham, M. D., health officer.
- 3. The contagious diseases reported during the year were as follows: scarlet fever, twenty-six, and no deaths; small-pox, eleven, and no deaths; and a few scattered cases of diphtheria, with one death.
  - 4. Very good isolation was maintained.
  - 5. All of the sick were isolated.
- 6. Sanitary inspections of premises where sickness prevailed were made and conditions found to be good and apparently not to blame.
- 7. Several sanitary inspections, mostly of sink drains, were made at my own option.
  - 8. No unhealthy localities in this town are known.
- 9. All public nuisances, unsanitary premises, etc., are reported to the town council when not abated as ordered.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
  - 11. The Crystal Ice Company is the ice dealer of this town.
  - 1. Cumberland.
  - 2. Raynor Woodhead, M. D., health officer.
  - 3. There were no epidemies in this town during the year.
- 6. Every tenement on the Cumberland side of Manville was inspected. Most of the cellars had water in them and most of the sink-drains were not connected with the cess-pools. Several families were in the habit of using the same closet.
- 8. I should consider the upper row of the Manville tenements an unhealthy locality. The cause is owing to the close proximity of the water closets to the dwelling houses. They are also low studded and not emptied often enough.
- All public nuisances, unsanitary premises, etc., are reported to the town council.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.

- 11. James Meharg, of Lonsdale, and the Pawtucket Ice Company are the ice dealers of this town.
  - 1. East Providence.—No report from the health officer.
  - 1. Foster.—No report from the health officer.
  - 1. Glocester.
  - 2. George A. Harris, M. D., health officer.
  - 3. There were no epidemics in this town during the year.
  - 6. Inspections of premises where sickness prevailed were not made.
  - 7. No sanitary inspections were made uring the year.
  - 8. No unhealthy localities in this town are known.
- 9. No occasion for reporting public nuisances or unsanitary premises has arisen during the year.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
  - 11. Wilson & Place are the ice dealers of this town.
  - 1. Johnston.
  - 2. Ralph H. R. Shaw, M. D., health officer.
  - 3. There were no epidemics in this town during the year.
- 7. Sanitary inspections were frequently made at my request by the town board of health.
  - 8. I have no reason to believe that any unhealthy locality exists in this town.
- 9. All public nuisances, unsanitary premises, etc., are reported to the town council.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
- 11. The Pocasset and the Hughesdale Ice Companies, and William E. Merritt, are the ice dealers of this town.
  - 1. Lincoln.—No report from the health officer.
  - 1. NORTH PROVIDENCE.
  - 2. John B. Corbett, M. D., health officer.
- 3. Scarlet fever was quite prevalent throughout the year, there being forty-six cases of this disease, none of which, however, were fatal.

- 4. Isolation was maintained.
- All of the sick, in families where there were one or more children, were isolated.
- The origin of this disease was traced to the large quantities of swill carted from Providence.
  - 7. No sanitary inspections were made during the year.
- 8. This is a very healthy town with the exception of the vicinity of Charles street, where swill is carted.
- All public nuisances, unsanitary premises, etc., are reported to the town council.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
  - 11. William R. Sweet, of Centredale, is the ice dealer of this town.
  - 1. NORTH SMITHFIELD.
  - 2. John B. Greene, health officer.
  - 3. There were no epidemics in this town during the year.
  - 4. Isolation was maintained.
  - 6. No inspections of premises where sickness prevailed were made.
  - 7. One sanitary inspection in regard to a filthy cesspool was made.
  - 8. No unhealthy localities in this town are known.
- All public nuisances, unsanitary premises, etc., are reported to the town council.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
  - 11. C. R. Day, of Millville, Mass., is the ice dealer of this town.
  - 1. PAWTUCKET.
  - 2. Byron U. Richards, M. D., city physician.

SPECIAL REPORT OF THE SMALL-POX OUTBREAK IN PAWTUCKET.

To the Honorable Board of Aldermen of the City of Pawtucket:

After many years of freedom from small-pox it was the misfortune of this city to be visited by the scourge during the past summer.

Other cities and towns in this vicinity had been contending with the disease more or less for the past year, consequently we were not unmindful of our danger nor unprepared, when finally we had to cope with it. The superintendent of health was notified of a case in the family of Joseph Patnaude, 942 Main street, on Monday, July 8. This patient was a boy of ten years. Later in the day, the department was informed of two more eases, one a child of six, the daughter of Mr. Henry Blais, at 32 Quiney avenue, and the other the 13 year old daughter of Marshall Daigle, 7 Ship street. In addition to these there were on the next day reported to us the following cases: Aurore Noiseux, age 11; and Ålice Bergeron, age 11, at 41 Slater street; and Fred Bourassa, age 11, at 21 Comstock street.

On July 10, another case was located in the family of Mrs. Langevin, 99 Capitol street; this boy was also 11 years old.

Fortunately Pawtucket has an excellent isolation hospital, commodious and in every detail thoroughly up-to-date. These little patients were promptly moved to the hospital and placed under the care of a first class nurse and in two instances the mother, being immune, was allowed to go with her child and give assistance in the work of the hospital.

On the advice of the secretary of the State Board of Health, the houses were furnigated and the quarantine raised, members of the families were vaccinated, and a daily visit made upon them until all danger was passed.

As these children came from large families this became quite a task as we had to see between fifty and sixty suspected persons each day for two weeks.

There were among these ten children who had never been vaccinated; these all, with but one exception took the disease, but it was greatly modified by the vaccine which was promptly used.

Six of these children were cared for in the hospital while three illegally broke quarantine and fled to Three Rivers, Mass., where they were placed under quarantine by the Massachusetts authorities. Members of the household, however, in which they resided, contracted small-pox from them.

None of the patients of the hospital were at any time seriously ill and the last ones were discharged August 6 and the place was properly fumigated.

We were again informed of a case of small pox on the 26th of August; this time the victim was Mrs. Mary Harris, 84 Whitman street, 36 years of age and the mother of 6 children; fortunately all were immuned by vaccination except the husband and an infant.

Mrs. Harris was taken to the hospital August 27 and a nurse procured. Her illness was of a far more serious nature than any previous case; the eruption was of the confluent type and her suffering was great; her recovery was, however, finally complete.

The husband, Arthur Harris, was taken with the disease September 8, but was confined to the bed but a few days and both were discharged, well, October 2, and the hospital once more fumigated.

As to the cause of the first outbreak we have been unable to make it out. We feel certain, nevertheless, that the source of infection was in the St. John's parochial school, during the very last days before the summer vacation, consequently seven children, six in room No. 3, and one in room No. 1, and whose homes were quite separated, took the disease at about the same time.

The later outbreak is better understood. The father, an immune, having previously had small-pox, came in contact with the infection in the Social mill, in Woonsocket, and Mrs. Harris did her father's washing, and in about two weeks came down with the disease; this has always been considered a common cause for spreading variola.

Regarding the financial expense to the city, it has of necessity been considerable as we were obliged to buy nearly everything for the hospital, including a stove, tent, and twelve beds; we have also had to furnish much clothing and groceries and pay rent.

It was our intention to itemize this account, but as it can all be found with the eity auditor we have thought it unnecessary to do so. The total is about \$2,400, besides some extra vaccination work, payment for which has been made from our last year's appropriation.

We have been more unfortunate than many other places in having two outbreaks to deal with instead of only one, but it has been our exceedingly good fortune to confine the disease in every instance to the family in which it was first located, it not having at any time spread to any other family.

Our most sincere thanks are due to his honor the mayor, and each member of the board of health, for valuable support, also for aid received from the overseer of the poor and from Mr. and Mrs. Read, at the city farm.

Very respectfully submitted,

Byron U. Richards, Superintendent of Health.

- 1. Providence.
- 2. Superintendent of health, Charles V. Chapin, M. D.; vaccinating physician. Charles H. Leonard, M. D.; medical inspector, Eugene P. King, M. D.
- 3. The following extracts from Dr. Chapin's report will fully answer all questions in circular No. 132:

#### GARBAGE,

During the year the "swill and house offal" was collected by Messrs. A. H. & J. Barney under a temporary arrangement at the rate of 15½ cents per capita. The amount paid has been \$2,299.17 per month. The contractors use from 20 to 22 two-horse wagons, and it is estimated that about 16,000 tons of garbage are collected annually.

A small amount of garbage is collected by farmers who receive a special license for this. There are also a considerable number of farmers who purchase swill from the contractors and draw it out into the country to feed to swine. Each person is required to have a license for this, and to carry the swill in a tight box closely covered. In all, 112 of these licenses were issued during 1901. These licenses run from April 1st to April 1st. This change in the date for granting licenses was made so that it might not be necessary to repair and paint the wagons for inspection during the bad weather of winter.

#### BOARDING HOUSES FOR INFANTS.

These boarding houses are required to take out licenses annually by Chapter 464 of the Public Laws (20 May, 1897). They must also be inspected annually by this department. Twenty-one licenses were issued in 1901 authorizing the receiving of 45 children.

There are no baby farms in the ordinary acceptation of the term in the city, that is there are no places where large numbers of children are kept together under poor surroundings and with neglect of all sanitary precautions.

#### LODGING HOUSES.

The lodging houses in this city have long been in a deplorable condition. I have frequently had occasion to visit them and have found them crowded and filthy. The captain of the Central police station (now chief of police), and the overscer of the poor also have several times suggested that this department undertake to secure better sanitary conditions in these houses. But quite independently of any executive action the city council last November voted to ask the general assembly for authority to regulate these houses. In the hope that such authority would be given and with a view to securing data on which intelligent regulation might be based, I made an inspection of all the lodging houses that were reported to me by the police department. There were nine of them, besides the municipal lodge. They are as follows:

LOCATION,	PROPRIETOR.	BEDS.
407 Richmond street	$\ldots . Frank\ D'Ambruso \ldots$	22
385 South Main street	Sailors' Haven	20
98 Wiekenden street	Salvation Army	74
35 Power street	Joseph Fallon	52
213 South Main street	$\ldots. William\ Woleon\ldots.$	96
297 Dyer street	Antonio Granata	25
8 Steeple street	M. Plante	51
32 Fountain street	William Woleon	70
103 South Main street	Samuel Marks	69

It will be seen that in the above houses beds are provided for 479 persons. But it must not be imagined that at times these places do not receive a very much larger number. Several of the houses have long benches on which the men sleep, and occasionally a considerable number will be found sleeping upon the floor. The municipal lodge accommodates about ninety-four. The municipal lodge is closed from May 1st to October 1st, but the other houses are open at all times, though their patronage is very much less in the summer than in the winter. The following are among the items noted during my inspection:

Overcrowding.—According to the Boston law 300 cubic feet is the minimum air space allowed each lodger. In Chicago and New York it is 400 feet. In Providence I found that the accommodations afforded 132 persons was less than 300 cubic feet of air space, the accommodation for 132 was between 300 and 400, and the accommodation for 215 was over 400 cubic feet. It must, however, be remembered that in several houses the nominal space is frequently cut down by the admission of a greater number of lodgers than there are beds. The greatest crowding was noticed in the salvation army quarters, which, in most respects are far superior to the other lodging houses catering to the same class of patrons. The most ample accommodations were found in the sailors' haven. In most of the lodging houses the beds are in large dormitories, but at 103 and 213 South Main street there are a few small single and double rooms which let for a somewhat higher price. At the sailors' haven each man's bed is shut off by a partition running up about eight feet. At 35 Power, 297 Dyer, and 407 Richmond streets, old dwellings are used for lodging houses and are very poorly adapted for the purpose. In two instances beds were found in closets.

Ventilation.—The salvation army quarters and the sailors' haven have ventilators in the ceiling, but in the other houses the only means of changing the air is by open windows.

Heating.—All the houses use stoves for heating except the salvation army, which has a hot air furnace. This is, of course, far superior to stoves and does something towards diminishing the evil of overcrowding.

Lighting.—The question of lighting is important in view of fire danger. At the sailor's haven, 35 Power street and 213 South Main, gas is used exclusively; at 32 Fountain, 8 Steeple, 407 Richmond, and 297 Dyer, lamps only are used, and at 103 South Main street and at the salvation army both gas and lamps are employed.

Beds.—At 297 Dyer street, 407 Richmond, 35 Power, 8 Steeple, 32 Fountain, and 103 South Main street wooden cots (with woven wire springs) or wooden bedsteads are almost exclusively used. At 213 South Main, the sailor's haven and the salvation army, iron bedsteads with woven wire springs are used. At the salvation army these are double, one above another, and some of them are

arranged in fours. Most lodging house regulations require that the beds shall be 18 or 24 inches apart, but in Providence they are often found to be much nearer together. In no case was any water-proof covering used to protect the mattress, and many of the mattresses were in consequence very filthy and offensive. Some of the houses provide one sheet only for certain beds, and charge 10 cents for these beds, while two sheet beds require a fee of 15 cents. Comforters are generally used, though at the sailors' haven blankets only are found, and at the salvation army blankets are used on most of the beds. In Boston, comforters are forbidden, as it is impossible to wash them, and they become extremely filthy before they are worn out. At the sailors' haven the bedding is very clean. At the salvation army the sheets and blankets were found to be in very fair condition. In all the other lodging houses the bedding was usually very dirty, and in most eases extremely filthy and full of vermin. This was particularly true of the comforters and mattresses. The sheets are sometimes washed, though it may be at rare intervals, but the comforters continue to accumulate dirt for an indefinite period. As a rule the habitues of lodging houses sleep naked, but they do at times wear more or less of their filthy apparel to bed, and in some of the houses men may be seen on the beds with all their clothes on and also their shoes.

At least three of the poorer and larger houses provide slanting benches on which loafers can lie during the day. During the congested season these are also used at night, five cents being required for the privilege of sleeping on them.

Cleanliness.—In general, it may be said that when inspected, the lodging houses, with the exception of the municipal lodge, the sailors' haven, and the salvation army, were in a very filthy condition. The beds and bedding have been described. The floors and woodwork were covered with thick layers of dirt and expectoration, the sinks and water-closets were dirty and often obstructed, and the floor around them wet and offensive, and, lastly, the lodgers themselves were the dirtiest of all. In several of the houses the floors were so poor, old and worn, that it would be very difficult to keep them clean even if the attempt should be made.

Plumbing.—In the sailors' haven the plumbing is excellent, in all the others it is unsatisfactory, and in some execrable. Bath tubs are found at the sailor's haven, the salvation army, and at 35 Power street, but at the latter place there is no hot water and the tub is practically never used. The water-closets in most of the houses are defective, poorly lighted, unventilated, and filthy. In some cases they are placed right in the dormitory. At 297 Dyer street, the water-closet is in the cellar, and at 407 Richmond street there is no water-closet, but a privy vault in the yard instead. Wooden buckets standing in the dormitories are used in that house as a convenient substitute for a water-closet, and similar

arrangements have been seen in other houses. When urinals are provided their condition is like that of the closets. Iron sinks are used for washing. In no ease is the floor around the closets, urinals, or sinks covered with water-proof material.

General Conditions.—At the sailors' haven twenty-five cents is the price of a night's lodging and accommodations commensurate with the price are afforded. At the other houses the prices are ten and fifteen cents with some poor soup and stale bread for breakfast, and the accommodations are not worth the price. At the salvation army alone is any record made of the lodgers' names. Men may come and go and no questions are asked. Bad as is the filth of the lodging houses of this city a worse feature is their low moral tone. At the sailors' haven and the salvation army chronic "bums" are not wanted, but at the other houses the large proportion of lodgers are loafers and alcoholics, and a great many of them are well known in the police courts of this and other cities. Men may be seen at all hours of the day and night loafing and sleeping off the effects of intoxication. Beer is frequently brought in from neighboring saloons. Such surroundings are degrading to the small minority of better men, who are, through misfortune, temporarily driven to the cheap lodging house. These houses are well known to be the active means of spreading contagious disease, especially small-pox. Six out of thirty-seven cases during the present outbreak of that disease were among lodgers. Great difficulty was experienced in dealing with the disease in these places, and it was almost impossible to learn anything about the patient or who had been exposed. Very little assistance was given the inspectors by the keepers of these houses. This experience has shown that to protect the public from the spread of disease, if for no other reason, the lodging houses of this city need strict supervision.

The conditions at the municipal lodge are far superior to any of the houses receiving a similar class of persons and in all respects are exceedingly satisfactory.

#### DISINFECTION.

Disinfection after communicable disease in the city is not compulsory, and is only done at the request of the family. It is done by this department without charge.

Formaldehyde disinfection has been done in nearly every instance. A modified Chicago method is followed. In some of the houses sheets are hung up and sprayed exactly as in Chicago, but in a large proportion of cases the spray is applied to the carpets, rugs, hangings, bedding, etc., that may happen to be in the room, all of which are spread out a freely as possible. Occasionally goods are removed from the house for steam sterilization. Corrosive sublimate and formalin are left at nearly every infected house with directions as to their use.

#### VACCINATION.

During the year 1901 the number of persons vaccinated was 6,234. The only public vaccination has been at the fourth ward room on Fountain street Friday afternoons. The use of humanized virus which had hitherto been chiefly employed, was discontinued early in the year and glycerinized virus furnished by the health department of the city of New York was used. The number of certificates of vaccination issued was 3,407. The following table gives the number of persons vaccinated and the number of certificates issued from 1856 to 1880, from 1881 to 1890, and during each year since that time:

Year.	Persons Vaccinated.	Certificates Issued.
1856–1880	24,142	32,585
1881–1890	28,567	17,525
1891	1,738	2,112
1892	2,440	2,407
1893	1,905	2,359
1894	3,086	2,809
1895	1,511	2,050
1896	1,963	2,536
1897	2,218	2,900
1898	2,157	2,430
1899	2,863	2,650
1900	2,168	2,550
1901	6,234	3,407
Total, 1856-1901	80,992	78,320

# MOSQUITOES.

During the years 1900 and 1901, Prof. F. P. Gorham and myself devoted a great deal of time to the study of mosquitoes in this city. These investigations were undertaken to determine the species here present, the breeding places of the insects and their life histories. One object we had was to study the relation between the distribution of malaria and the habitat of certain species of mosquitoes with a view to reducing malarial disease by restricting the propagation of the mosquitoes. A second object was a determination of the breeding places of the common house mosquitoes in order that it might be possible to diminish, if not to entirely abate the mosquito nuisance in this city.

In reporting on this mosquito question I would call your attention to a number of important facts in the life history of these insects. The adult insect hibernates and appears during early spring to lay its eggs for the next summer's brood. Sometimes comparatively few mosquitoes survive the winter and sometimes the number is very large, so that in March and April they may, in certain places, be as numerous as in September. I have seen the cellar of a dwelling fairly swarming in early spring, and a few may be found in almost every house. The mosquito lays its eggs in small bodies of water and in a few days they hatch out into the larvæ or wigglers. These grow rapidly in the water and in from two to four weeks become adult mosquitoes. There are thus a number of broods through the season and this is, perhaps, one reason why they are more numerous during the late summer. In the fall some of the mosquitoes die and some survive the ensuing cold weather as was stated above.

There is every reason to believe that malarial disease is spread through the agency of a single genus of mosquito. These insects may bite a person who has malaria and may then become themselves infected with the minute parasite which causes the disease and which lives and propagates in the blood of the patient. After a short time this malarial parasite increases in great numbers in the poison gland and other parts of the infected mosquito, and if that particular insect happens to bite another person, that person is pretty certain to have malaria. It is very probable that this is the only way in which malaria spreads. At any rate, it has been shown that if persons in malarious districts are protected from the bites of mosquitoes they will not contract the disease.

The genus of mosquitoes which are known to transmit malaria is Anopheles. Two species are found in this city, A. maculipennis and A. punctipennis. They have simlar habits and are about evenly distributed. A map has been prepared, which can be seen in my office, to show the distribution of the different kinds of mosquitoes. On this map the area surrounding the breeding places of anopheles is painted blue. A study of this map will show that nearly every fresh water swamp, pond or stream which is shallow, or has shallow reedy shores, is the breeding place of this kind of mosquito. We have not found it breeding in very dirty water, such as cesspools, eatch-basins, and foul smelling pools, though other species of mosquitoes do breed in such places. The malarial mosquito prefers comparatively clean water, and it is found in the greatest numbers where the water is quiet and where the wigglers can find shelter among rushes, weeds, and grass. It is very often found in shaded waters. A favorite place is the cowtracks filled with water in swampy meadows. We have not found it in tubs or similar collections of water about houses in this city, though Professor Gorham found them in a rain-water barrel in Wickford. We have found these mosquitoes in water from early May to October, but in the latter month they were not nearly as numerous as in September. Anopheles are found to breed in all those parts of the city which are known to be malarious.

Malarial disease first appeared in Providence in 1880, and has prevailed with varying intensity ever since. Probably the most severe outbreak was in 1896, at which time I estimated that there were about 5,000 cases of intermittent fever in the city. A peculiarity of the disease that year was that there was a great deal of it in certain sections of the city during March and April. There was probably less malaria than usual in the city in 1901. I attempted to learn something about the amount and distribution of malaria, and also at the same time something more about the distribution of mosquitoes, by sending to all the physicians of the city the following circular:

# HEALTH DEPARTMENT, OFFICE OF SUPERINTENDENT OF HEALTH, CITY HALL, PROVIDENCE, Sept. 28, 1901.

DEAR DOCTOR:

This department has during the past summer been investigating the distribution in this city of those varieties of mosquito which are said to be the agents in the transmission of malarial disease. In order to further carry on this study it will be necessary to know in what parts of the city malaria has prevailed. I shall esteem it a favor if you will kindly inform me on the enclosed blank of the cases of chills and fever which have come to your notice. Reports of cases of malaria other than those presenting intermittent fever are not desired. Neither are cases desired which probably contracted the disease outside of the city.

Attention has also been given to those other varieties of mosquito which, though not bearers of disease, are often a most tormenting nuisance. It will be of assistance in planning the destruction of these insects if you will kindly note as indicated in the blank your experience with them at your residence. If you could send me a few specimens caught either within or without the house I should be glad to have them. The easiest way to catch them is to use a small, wide-mouthed bottle in which a little alcohol has been placed. When the insect rests on the ceiling, wall, or clothing, it may be caught by placing the mouth of the bottle over it, when it will fly into the bottle and be killed by the alcohol. When a few have been caught in this way the bottle may be corked and sent to the city hall with the name and location.

Yours truly,

CHARLES V. CHAPIN,

Superintendent of Health.

The results of this enquiry were, however, not very satisfactory. About 800 cases were reported, but many of them were not definitely located. Only 70 physicians reported and some that must have treated many cases were among those who did not report. Some I feel sure exaggerated the number of cases

treated, and some I am sure were careless as to diagnosis. I do not feel that I learned very much about the amount of distribution of the disease. No reliance can be placed upon the deaths reported as due to malaria. This disease rarely causes death in this climate, and deaths attributed to it are almost invariably due to something else. From what I have learned in this and previous years, it would appear that malaria was not as prevalent as usual in 1901. Cases were found living in all parts of the city, but as has been the case in other years more were reported from the outlying portions of the city than elsewhere, and at several points where there has in other years been a marked group of cases the same thing was noticed this year. In a general way it may be affirmed that a very large proportion of the cases occur in locations which must be infested with anopheles mosquitoes. It is furthermore, not at all unlikely that some of the cases reported from the thickly built parts of the city and far from swamps, were in reality contracted while the person was temporarily in a truly malarious district.

The discovery of the relation of the mosquito to malaria has merely served to emphasize what was perfectly well known before, the close dependence of malaria. upon the near presence of shallow bodies of fresh and comparatively clean water. Two much discussed and uncertain points have, however, been cleared up. It is now known that malaria is not disseminated through drinking water, and that it is not caused by digging up or excavating the soil unless, indeed, as often happens, shallow pools are caused thereby. This discovery is, however, of great value in assisting us in making a rational effort to exterminate the disease. We can now quite accurately determine the places in which the mosquito, which is the carrier of the disease, breeds, we can determine when the danger has been overcome, and we have learned how in some cases the work can be done in a comparatively simple and cheap manner. The problem of the complete extermination of malaria is not, however, simple or easy of solution. It is necessary in the first place that the work should be under the constant supervision of an expert. There is no use in attempting anything without a constant examination of all the possible breeding places of mosquitoes. Each one of the infected places must be treated in the way which is cheapest and most effectual. Professor Gorham and I experimented some with kerosene, and it did not seem to us that there were many malarious spots in this city which could be treated in this way. Grass and rushes interfere greatly with the use of kerosene, and if these are cleaned out the mosquitoes may disappear or may be kept down by stocking the place with fish. The authorities in Havana found that kerosene was of little use in fighting anopheles. The same is true of fish. There are only a few places where they can be successfully used to exterminate the mosquitoes. The chief reliance must be placed on filling and draining. The extension of the sewer system and the consequent drainage of swampy meadows and small streams is the most effectual

means of doing away with malaria. Much has been accomplished already, and more can be done by building some of the sewers that are now under discussion. Some small ponds can and should be filled and in some cases the cost would be very small. The only way to treat swampy meadows is probably by ditching or underdraining. If the former method is employed the ditches must be kept free from grass and perhaps kerosene be used. A more difficult problem is found in some of the larger ponds. To keep them free from weeds and perhaps to apply kerosene besides would be pretty expensive, but at present no other means are known.

Besides studying the malarial mosquitoes we gave considerable attention to the other species of this insect which have a share in the mosquito nuisance which is so annoying over a large part of the city during summer and autumn months. Among Providence mosquitoes we noted Culexpungens, C. stimulans, C. solicitans, C. impiger, C. triseriatus, C. excrucians, and Uranotænia Sapphirina. By all odds the chief offender is C. pungens. This is the mosquito which is almost invariably the destroyer of our rest and comfort. Probably at times in the suburbs C. stimulans and also the two species of Anopheles may be annoying, and near the salt marshes where it breeds C. solicitans is quite a pest. But the latter mosquito does not enter houses to any great extent. But over nearly the whole of the city, both the thickly settled portions and the suburbs, C. pungens is the common house mosquito. If we could exterminate this mosquito nine-tenths of the mosquito nuisance would be done away with. This mosquito is not very particular in the selection of its breeding places, and is found in almost every body of fresh water. It, however, prefers water that is rather dirty and may be found in the foulest pools which support hardly any other animal life. It is, therefore, rarely found in the same pools as Anopheles. Deep clear water it does not breed in. Neither this nor any other mosquito has ever been found by us in the Hope reservoir. For some time we were puzzled to know where the breeding places could be which furnish the enormous numbers of these mosquitoes that are found in the built up portions of the city. At last we discovered that the catch-basins that are found on the street corners are the chief seat of the trouble. That these basins are the breeding place of mosquitoes was noted independently of us by Drs. Denny and Chase of Brookline, but had never before been observed. These catch-basins are probably the chief source of the non-malarious mosquitoes which infest the city. These insects are also found in some of the dirtier pond holes and in the Moshassuck river, and occasionally in tubs or barrels on private premises. Some of the smaller ponds should be filled, and some might, perhaps, be treated with kerosene. Property owners might be fined for maintaining artificial breeding places like tubs or fountains. How to deal with the river is not so easy a problem and would probably require some experimentation. The catch-basins could probably be treated with oil and the mosquitoes kept from breeding in them, and in this way the greater part of the mosquito nuisance could be prevented. This could not, however, at least at first, be done without skilled supervision. How much it would cost to do this work is difficult to say, but I should think that the common, non-malarial mosquito could be largely driven out of the more thickly built part of the city for perhaps \$2,000 for a season's work. While in Havana recently, I was much impressed with the success of the health authorities there in exterminating the yellow fever mosquito, which breeds under very much the same conditions as our common house mosquito in Providence. On account of the numerous receptacles for holding rain-water on nearly all private premises in Havana the difficulty of the work was much greater than would be that of a similar undertaking here. In concluding this subject I would say that it required many days of patient research to obtain the facts herewith presented. Most of this work was done by Prof. Gorham without any compensation from the city.

### CONTAGIOUS DISEASE HOSPITAL.

The contagious, or "city ward" of the Rhode Island Hospital, a description of which may be found in my report for 1896, page 37, was built by the city on the grounds of the Rhode Island Hospital and was opened January 13, 1896. The ward is maintained by the Rhode Island Hospital, and the city pays \$15 per week for every patient sent to the hospital by this department. During the year there were removed to the hospital under my direction 153 cases, and the total expense to the city for caring for them was \$5,039.58.

The Rhode Island Hospital first began to receive patients with scarlet fever and diphtheria in 1891, and the following shows the number of cases admitted since that time, and also the number of deaths that occurred in the hospital:

	SCARLE	r Fever.	Dipнī	HERIA.	Total	Danana	
YEAR.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Expense.	
1891	6	0	4	1	10	\$486 43	
1892	13	2	4	1	17	1,553 36	
1893	20	1	5	1	25	1,267 77	
1894	27	2	4	2	31	2,297 07	
1895	37	0	27	3	64	3,614 78	
1896	35	2	103	10	138	4,679 64	
1897	22	2	57	6	79	4,924 3	
1898	21	2	70	6	91	3,404 7	
1899	40	2	47	3	93*	4,390 0	
1900	49	1	87	10	147†	6,943 6	
1901	37	2	115	20	153‡	5,039 5	
Totals	307	16	523	63	848	38,601 3	

<sup>\*</sup> Measles, 6.

‡ Measles, 1.

Besides board paid for patients at the hospital as above, \$51.20 was expended in assistance and care of indigent patients at their homes.

#### TYPHOID FEVER.

The following table shows the number of cases and deaths for each month during the last seventeen years, and the number and ratio of cases and deaths each year during the last eighteen years:

<sup>†</sup> Measles, 21.

Typhoid Fever.

1	Ratio of Deaths to Cases.	42.62	52.38	96.09	59.09	25.55	29.79	39.00	32.63	35.42	25.38	27.13	20.26	24.69	22.42	23.92	28.00	19.25	9.72	29.5
	Total Deaths	53	T T	53	39	103	59	39	65	51	90	20	46	40	53	39	43	41	47	106
	Total Cases.	122	84	104	63	403	197	100	190	144	197	258	227	162	107	163	150	213	168	3,052
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1 2	Cases.		11	1 13	18	9 177	3 31	6	5 74	18	6 24	5 20	8 50	5 23	3 16	9 25	22	20	35	92 286
	Deaths.		2	11	10	O	ಣ	¢≀	9	9	9	10	000	9	8	6	4	8	10	97
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	Deaths.		ಣ	:	82	=	\$₹	€5	ಣ	¢.	က	4	ಣ	60	:	:	35	œ	-	39
-	Cases.	:	12	23	:	63	_	_	2	9	9	11	4 11	11	<u></u>	4	11	6	00	26
N. W.	Deaths.		4	8	€\$	9	1	2.1	CX.	9 9	3.6	6 11	4	-	:	3.4	3 11	3 9	_	49
2	Cases.	:	2	5	က	2	9	4	9_	73	111	oc	2	2	9	5	00	2	7	46 102
Appril	Deaths.	:	CS.	10	:	ෆ	96	5 4	=	3	***	10	=	#	65	4	***	:	#	46
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(X	Deaths.	:	4	:	8	:	00	8	cs.	5	-	i.	က	-	CS.	4	:	1	82	
- F	Cases		3 7	30	6.1	2 2	5 14	4	2	7F 000	3 6	1 29	16	00	25	3 11	65	00	6 9	75 136
23	Deaths.	:	40						r	~		14		4				4		
-	Cases.	:	9 .	9 :	.5	6.	. 35	. 12	9 .	:	. 23	. 50	. 10	18	. 10	. 13	¢1	04	00_	. 215
	YEAR.	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	Totals.

The State Board of Health offers to examine the blood of typhoid suspects by the Widal test, but of the 168 cases reported during the year only forty were subjected to the test, thirty-seven of which proved to be positive. In one instance the test was negative first and then postive. In three cases reported as typhoid only a single negative test was reported. There were also forty-seven negative tests reported to this department.

#### DIPHTHERIA.

Besides the cases which were recorded as diphtheria, there were twenty cases of membranous croup and eleven of other forms of laryngitis, all resulting in death, which came to the knowledge of this department. It is probable that most of these cases were really diphtheria, and if reckoned would considerably increase the mortality from that disease. All of the cases of membranous croup were placarded with a membranous croup sign and were treated as if contagious. In seven of the cases of membranous croup and in one case of laryngitis a single culture was taken which proved to be negative.

There were reckoned as diphtheria 77 cases in 69 families, in none of which diphtheria bacilli were found. Some of these were doubtless not diphtheria, but the attending physician reported them as diphtheria, and in 64 of the cases no culture was taken for diagnosis. In the other 13 cases cultures were taken which proved to be negative. In four of these there was one negative culture followed by death; in six instances there were two negative cultures; in two instances three negative cultures (in one of these three negatives from both throat and nose), and in one instance there were five negative cultures. There was, however, very good evidence that all these 13 cases were true diphtheria. Of the 64 cases in which the physician did not take an early culture, in ten the child was very sick when the physician was called, so that he did not consider it wise to disturb the patient unnecessarily. In all of these the patient died.

There were 45 other cases in which the physician did not consider it necessary to take a culture for diagnosis, but in these cases or in their families diphtheria bacilli were afterwards found. There were thus in all 109 cases of diphtheria in which the attending physician did not avail himself of the aid of bacteriology in making his diagnosis. This was 19 per cent. of all cases. Of the 20 cases of membranous croup the physician did not take a primary culture in thirteen.

There were in the families where diphtheria bacilli were found a number of persons who were sick with the symptoms of the disease, but yet in whom no diphtheria bacilli were found, or were not found on the first examination. In ten instances there were two successive negatives although there were other cases known to be diphtheria in the family, and under the same circumstances there were five instances in which one negative only was obtained. No subsequent

cultures were taken from the above cases, but they were all doubtless true diphtheria. There were also four instances in which two negatives were followed by a postive, and 15 instances in which a single negative was followed by a postive. All of the cultures referred to in this paragraph were for diagnosis and taken early in the disease.

In 1901 there were examined by the State, city, and hospital laboratories 7,261 cultures. Of these 1,834 were taken for scientific purposes, and the remainder were taken in the ordinary course of department work. Forty-three were scarlet fever cases, of which two, one a hospital case, were positive.

The following table shows the number and percentage of persons of different ages exposed to diphtheria who contracted it, and the number who did not. This table includes both the Klebs-Loeffler diphtheria and clinical diphtheria. When I began to collect these facts in 1889, the inspector was not careful to obtain the age in every case, so that until 1890 only a portion of the cases are contained in the table, and it was only since 1893 that the facts in regard to all the adults in the family were obtained. The number exposed means all the members of the family where the disease occurred. Cases in public institutions are not included in this table:

# Diphtheria.

				C.	ASE:	s.				Number Exposed, Including Cases.									
Ages.	1889-90.	1891–95.	1896.	1897.	1898.	1899.	1900.	1901.	Total.	1889–90.	1891-95.	1896.	1897.	1898.	1899.	1900.	1901.	Total.	Ratio of cases to
Under 1 year.	13	29	17	15	6	7	1	13	101	59	130	91	67	31	31	32	60	501	20.1
1 "	24	43	52	31	17	9	22	38	236	43	114	97	36	44	21	49	67	471	50.1
2 years.	52	90	64	42	26	22	27	36	359	74	156	108	39	38	29	50	72	566	63.4
3 ''	44	103	68	44	. 19	21	40	48	387	76	164	110	31	36	32	71	80	600	64.5
4 "	47	103	82	54	33	19	23	49	410	71	168	131	42	57	32	47	90	638	64.5
5 "	48	91	72	67	30	10	31	62	411	75	179	132	31	46	27	62	101	653	62.9
6 "	42	72	61	58	25	16	33	52	359	68	151	105	42	44	32	61	95	598	60.
7 '	31	70	63	43	10	13	24	41	295	69	134	125	37	35	25	46	90	561	52,
8 "	33	65	60	37	18	7	16		266	58	141	121	48	36	17	39	64	524	50.
9 "	23	41	44	31	8	4	18	28	197	52	109	89	36	28	15	36	74		44.8
10 "	26	39	35	24	12	8	14		176	49	101	79	38	35	19	44			40.
11 '	17	27	41	21	11	5	12	23	157	39	76			25	9	28	52		46.
12	27	43	20	19	13	3	11	17	153	53	96	65		33	21	38	61		38.
10	8	21	24	15	10	2	3	7	90	28	68	66	34	22	10	18	33		32.5
17	11	15	16	11	3	2	5	6	69	33	49	68	23	18	14	21	31		26.8
15 " 16 "	11	12 7	10	7	5 4	3	4	5 5	52 46	17	60 51	49	31 19	20	16	15	28		22.
17 "	5	18	11	11	2	4	6	6	63	30 12	48	43	19 25	19	11 7	17 21	31 23		32.9
18 "	7	10	2	3	3	3	1	2	31	14	41	38	16	20	10	13	25		17.
19 "	2	7	10	8	0	0	2	1	30	8	30	37	18	7	70	16 16	18		21.
20 "	4	8	11	1	0	4	4	6	38	9	22	41	14	3	6	17	19		29.
Adults	85	159	97	78	35	23	45	81	603	_	1286		980	572	369		1116	7105	
Totals	566	1073	868	625	290	189	344	574	4529	1689	3374	3113	1664	1181	760	1385	2300	15466	29.

On December 29, 1899, a case of croup was reported from the St. Vincent Asylum. This proved to be diphtheria. The disease continued to appear in the institution from time to time during 1900, and the vigorous but futile efforts that were made to free the institution from it are are detailed on page 25 of the report of this department for that year. On January 13, 1901, another child was taken sick with diphtheria, was removed to the Rhode Island Hospital and died January 16th. Children were sick on January 29th and February 11th in whom non-

typical diphtheria bacilli were found. On March 15th a more severe case occurred in which typical bacilli were found. This case was moved to the hospital. On April 10th another case occurred which also went to the hospital. The next case June 2d, died June 16th. There were also cases on June 4th and 15th, and cases on August 10th, September 2d, October 1st, October 26th, October 30th, and November 18th, all of which died. Another case occurred early in December and died January 1, 1902.

At the Rhode Island School for the Deaf there were a few mild cases of diphtheria from 1898 to June, 1900. Since that time no case has occurred except a mild sore throat in March, 1901, in which, however, only a typical diphtheria bacilli were found (Wesbrooks C2).

On November 27th there was a case at St. Aloysius Asylum, an assistant in the refectory who had come to the institution only a few days before. She was removed to the hospital and no other cases occurred.

At the Rhode Island Hospital there were a few cases which were promptly isolated, and there was in no instance any extension of the disease. Six of these cases developed in the general words and were doubtless infected when they entered the hospital. One elevator boy and one nurse in the general wards were attacked, and one nurse in the diphtheria ward and one scarlet fever patient.

During the year 1901 there were four outbreaks of diphtheria in schools which are worthy of note. Three of these were in public schools and one in a private school.

From December 20, 1900, to March 4, 1901, there were 25 cases in the Bourn street school. There were not many at any one time, but they were scattered irregularly over the whole period. Whenever cases of diphtheria were reported from the school all the children in the family were excluded until a negative culture had been obtained from the throat of each. When the families were found to be careless all the children in the house were excluded. If the child had been sick in school, desks, books, etc., were disinfected. Still cases of the disease continued to appear. On February 28th cultures were taken from the throats and noses of 67 children, nearly half of the school. Diphtheria bacilli were found in 26, but they were with one exception of the "barred" or "solid" types. In only one case were granular forms present, and that was a girl who had been kept out two weeks for "tonsilitis." It was then determined to close the school which was done for one month. During this time the rooms and their contents were thoroughly disinfected. No cases developed after the school was re-opened.

During the same period a similar though somewhat smaller outbreak occurred in the Mount Pleasant avenue school, though there were not quite so many cases. Nothing was done here except the ordinary isolation of cases, and after running about as long as that at Bourn street the outbreak subsided. At Montague street, from October 26, 1901, to December 23d, there were 13 cases. Nothing was done outside of routine work to check the outbreak, but after a time it ceased and no cases have since developed. There is no doubt that the source of the trouble in all three schools was the attendance of children who though well, still harbored virulent diphtheria bacilli. No attempt was, however, made to find them, as former experience had taught me that great opposition would be excited by attempting to isolate well children even if diphtheria germs were found in the throat.

On October 31st a case of diphtheria developed in a child attending a private kindergarten. Six other cases developed in the same school from November 2d to November 5th. The school was then closed for two weeks and thoroughly disinfected with formaldehyde and corrosive sublimate. Two other cases of diphtheria developed October 30th and 31st in the family of A. X., living in the neighborhood, but these children attended another school where there was no diphtheria at the time. Investigation determined the fact that a child of B. X., brother of A. X., and living in the same yard as A. X., but attending the kindergarten above referred to, had been out of school from October 18th to October 23d. The child had a cold in the head and the throat was slightly sore with a very small spot of exudation on one tonsil. The attending physician saw no occasion to take a culture, and did not consider that there were any indications of diphtheria. On November 7th this child and a younger sister were found to have quite a discharge from the nose, and a culture showed that diphtheria bacilli (Wesbrooks' type C.) were present in the throaf and nose of both children. Neither of these children were seriously sick and one was not sick at all. Yet it is extremely probable that these children were the source of the school outbreak, and were the means of giving diphtheria to 13 other children, five of whom were seriously sick, and one of whom died. The children of B. X. were kept out of school for some weeks and bacilli were found in their throats and noses as late as November 22d. No other cases developed in the school.

Very few instances occur where diphtheria recurs after negative cultures have been obtained and the placard removed. There were only three such cases last year.

At 199 H——— street, J. N., aged 4, was slightly sick with sore throat November 4th. Her sister, F. N., attended the kindergarten mentioned above. F. N. had a slight sore throat November 7th. Both children showed typical diphtheria bacilli and both had antitoxin. A negative culture from the throat was obtained from all other members of the family except the baby, M. N. Both J. and F. were placed in absolute isolation and none of the granular types of bacilli were found after November 17th. Two successive negative cultures were later obtained in one case and three in the other, and the isolation room was

thoroughly disinfected November 27th. The children were still kept separate from the baby for more than a week. On December 15th the baby had slight sore throat and diphtheria bacilli were found to be present, as they were also in the throats of J., F., and an older child M—y. This state of things continued till well into January, but rarely were bacilli of the granular type present. Finally on January 20th several successive negative cultures were obtained from all the children, isolation ceased and they were allowed to return to school.

On July 18th a case of diphtheria, F. W., occurred at 172 L—— street, and it was learned that two other children, K. W., and R. W., had been sick with sore throats July 4th and 10th. F. W. was removed to the hospital, and after a single throat negative from all members of the family the house was disinfected. On August 8th after a single negative from the nose and two from the throat, F. W. returned from the hospital. On September 3d C. W. was attacked with diphtheria, and diphtheria bacilli were found in his throat, and that of two other members of the family. Only barred types (Wesbrooks' C1) were found. From these cases negatives were obtained October 2d. On December 16th another case developed in E. W.

The following table contains only cases from families in which Klebs-Loeffler bacilli were found. It does not include institution cases:

Cases from Families where Klebs-Læffler Bacilli were Found.

			-	Casi	es.			ľ	Numbe		OSEI		LUDING	3	ases to
Ages.	1896.	1897.	1898.	1899.	1900.	1901.	Totals.	1896.	1897.	1898.	1899.	1900.	1901.	Totals.	Ratio of cases to number exposed.
Under 1 year	11	10	6	5	1	14	47	66	63	31	29	29	48	266	17.6
1 "	37	27	17	3	20	28	132	77	33	44	10	42	50	256	51.5
2 years	48	36	26	18	25	31	184	91	35	38	23	47	56	290	63.4
3 "	49	37	19	17	37	39	198	94	27	36	26	66	65	314	63.0
4 "	61	50	33	15	21	44	224	114	38	57	25	45	76	355	63.1
5 '	48	62	30	10	29	56	235	113	28	46	24	59	86	356	66.0
6 "	47	54	25	12	29	37	204	91	38	44	24	55	75	327	62.3
7 "	47	41	10	12	22	32	164	104	29	35	22	41	76	307	53.4
8 "	50	36	18	6	14	28	152	102	43	36	15	34	57	287	52.9
9 "	39	29	8	4	13	26	119	73	33	28	12	30	58	234	50.8
10 "	30	22	12	8	13	15	100	66	35	35	15	39	58	248	40.3
11 "	31	16	11	4	12	16	90	79	23	25	7	26	41	201	44.7
12 '	13	17	13	3	10	14	70	49	29	33	18	33	51	213	32.8
13 "	19	13	10	2	3	6	53	53	30	22	9	17	26	157	33.7
14 "	13	11	3	2	4	6	39	59	21	18	14	19	25	156	25.0
15 "	10	4	5	3	4	5	31	40	29	20	12	13	24		22.4
16 ''	8	5	4	3	1	3	24	33	16	19	10	15	24	117	20.5
17 '	10	9	2	4	6	6	37	32	23	12	5	19	18		33.9
18 "	2	3	3	2	1	2	13	26	11	20	7	11	22	97	13.4
19 ''	8	6	0	0	2	0	16	29	13	7	6	15	16		18.6
20 "	5	1	0	3	4	5	18	31	13	3	5	16	15		21.6
Adults	75	64	35	18	42	67	301	995	862	572	309	588	898	4,224	7.1
Totals	661	553	<b>2</b> 90	154	313	480	2,451	2,417	1,472	1,181	627	1,259	1,865	8,821	27.7

The following shows certain facts in the natural history of diphtheria:

Number of families in	9-90.	1891-95.	1896.	1897.	1898.	1899.	1900.	1901.	Totals.
which there was more than one child. Number of these in which there was	233	574	433	326	161	107	194	310	2,338
more than one case.	89	179	172	125	57	35	60	104	821
Number of children in all the above families Number of these chil- dren who were at-	894	1,614	1,690	1,262	642	458	756	1,138	8,454
tacked Number of additional families with chil-	422	750	793	578	287	191	319	470	3,810
dren in the same house  Number of children in	97	329	323	254	119	79	131	215	1,547
these families  Number of these additional families at-	262	854	898	665	311	199	359	591	4,139
tacked Number of children in	18	24	30	9	11	2	5	17	116
these families who were attacked Number of tenements which were disin- fected where there were other families with children in the	25	28	55	26	12	7	6	23	182
house  Number of instances of the above where the disease spread to other families in the	23	108	192	188	82	59	80	124	856
house	5	10	11	9	11	1	0	1	48
once removed  Number of those who were attacked on	54	202	141	176	71	57	73	106	\$80
their return	2	7	0	3	1	0	0	2	15

As in previous years the safety of other families in the house is shown to be very great. In only 17 of 215 cases did the disease extend beyond the first family attacked. In all of these cases communication was free between the families. In no case did the disease extend beyond one family where there was any isolation at all. It is the custom in this department not to exclude from school, children in the house, except those of the family in which the disease actually exists. If, however, it is believed that there will be no isolation and that all the children in the house will mingle freely they are all excluded. This, however, is found to be necessary in not more than one-quarter of the cases. But in scarlet fever no children in the house who have not had scarlet fever are allowed

to attend school for a week, and in diphtheria until a negative culture has been obtained from the throat.

During 1901 such permits were given in scarlet fever in 20 families with 47 susceptible children, and in diphtheria in 26 families in which there were 66 susceptible children. During the past six years the figures are for scarlet fever 130 families with 229 children and for diphtheria, 112 families with 348 children. In none of these did the disease develop, which indicates that it is quite safe to permit children in the infected house but not in the infected family, to attend school, except in those cases where manifestly no care is taken.

During the year, 106 well children were sent away from home to avoid the disease. Two were attacked while away and one on its return home, but the child returned while another member of the family was still sick.

Of 94 cases which went to the hospital from houses where there were children left behind, there was no instance in which these well children were attacked on the return of the patient from the hospital. Two negative cultures from the throat and nose are required before discharge from the hospital.

The following table shows the number of persons exposed to diphtheria who had diphtheria bacilli in their throats, and who were not sick, and also the number exposed in the same families who did not have bacilli in their throats and who were not sick. This table may profitably be compared with the table on page 92, which shows the number of exposed persons who were sick:

Well Persons in Families where there was Diphtheria whose Throats were Examined for Diphtheria.

		Рев	SONS	Ехамі	NED.		Num			Four	H BAC	ILLI	e e
Ages.	1897.	1898.	1899.	1900.	1901.	Totals.	1897.	1898.	1899.	1900.	1901.	Totals.	Percentage.
Under 1 year	36	3	18	27	35	119	6		2	4	5	17	14.2
1 "	34	11	14	27	26	112	5		1	4	5	15	13.3
2 years	32	3	12	23	27	97	11		2	6	4	23	23.7
3 "	28	7	16	32	29	112	9	4	1	7	4	25	22.3
4 "	34	9	15	21	37	116	10	5	7	5	4	31	26.7
5 "	29	8	16	33	34	120	4	3	1	6	3	17	14.1
6 "	43	7	17	30	40	137	15	4	6	8	9	42	30.6
7 "	36	10	18	23	43	130	8	2	5	4	11	30	23.1
8 "	41	6	11	29	32	119	8	3	3	4	7	25	21.0
9 "	34	10	10	21	38	113	5	6	1	8	3	23	20.3
10 "	37	9	15	35	43	139	9	3	2	8	4	26	18.7
11 "	20	11	6	16	26	79	2	2		3	4	11	13.9
12 '	29	9	16	32	41	127	7	4	2	8	7	28	22.0
13 "	34	5	6	16	25	86	, 5	4	1	3	2	15	17.4
14 "	21	10	13	20	24	88	3	3	4	2	1	13	14.7
15 "	23	2	14	10	21	70	2	1		1	1	5	7.1
16 "	12	4	7	16	25	64	1		2	1	5	9	14.0
17 "	16	5	4	17	15	57	3	3	1	1	1	9	15.7
18 "	13	. 5	8	11	20	57	1	1		1	3	6	10.5
19 "	9	4	7	13	12	45	2	1			1	4	8.8
20 "	10	1	1	12	10	34				2	2	4	11.7
Adults	653	159	336	562	795	2,505	74	33	46	64	60	277	11.0
Totals	1,224	298	580	1,026	1,398	4,526	190	82	87	150	146	655	14.4

During the year 1901 the attempt was made, as it was in 1895, 1896, 1899, and 1900, to secure data in regard to the curative value of antitoxin as used in cases of diphtheria in this city.

The following shows the fatality in antitoxin and non-antitoxin cases in different classes of persons in 1900:

	An	TITOXIN (	GIVEN.	No A	ANTITOXIN	GIVEN.
	Cases.	Deaths.	Per cent.	Cases.	Deaths.	Per cent.
Hospital cases	108	19	17.5	4	1	25.0
Private cases, diphtheria bacilli present.	246	24	9.7	147	14	9.5
Private cases, no diphtheria bacilli present	65	5	7.6	29	5	17.2
Membranous Croup	8	8	100.00	12	12	100.00
Totals	427	56	13.1	192	32	16.6

In interpreting the above it must be borne in mind that physicians in this city are not inclined to give antitoxin unless the case appears to be somewhat severe.

The following table gives the results of my observations during the past fourteen years concerning certain points in the etilogy and prevention of scarlet fever. This table for the years previous to 1892 does not include all the families and cases:

1887-90.	1891-95.	1896.	1897.	1898.	1899.	1900.	1901.	Totals.
Number of families in								
which there was more								
than one susceptible								
child	1,600	305	174	178	267	215	171	3,525
which there was a								
second case 334	711	128	58	68	90	72	51	1,512
Number of susceptible	,11	120	90	00	50	12	01	1,012
children in all the								
above families2,270	5,571	1,032	644	655	992	758	573	12,495
Number of these chil-								
dren who were at-								
tacked1,194	2,935	526	318	322	477	401	259	6,432
Number of additional								
families with suscep-								
tible children in the	0.17	107	132	113	000	174	122	9.024
same house 273 Number of susceptible	817	197	132	113	206	174	122	2,034
children in these								
families 799	2,259	545	340	295	628	412	310	5,588
Number of these addi-	2,200	,,,,	010		020		323	0,000
tional families at-								
tacked 45	94	16	6	7	5	7	4	184
Number of children in								
these families who								
were attacked 81	157	41	9	12	9	14	5	328

189	97-90.	1891-95.	1896.	1897.	1898.	1899.	1900.	1901.	Totals.
Number of tenements disinfected where there were other families with sus- ceptible children in									
the house  Number of above where the disease spread to other fam-	119	374	139	86	84	137	115	84	1,138
ilies in the house  Number of susceptible children who were at	10	9	10	0	7	0	2	0	38
once removed  Number of these who were attacked on	60	374	174	106	82	134	76	83	1,089
their return  Number of children who were exposed and who had pre- viously had scarlet	4	20	5	0	4	0	4	1	38
fever	• • •	278	112	62	63	73	55	68	711
ond time  Number of adults who were exposed and who had previously		40	20	3	12	10	4	4	93
had scarlet fever  Number of these who were attacked a sec-		541	120	79	87	155	184	112	1,278
ond time		10	1	0	1	0	3	1	16

Of the 83 well children who were removed from families where there was scarlet fever, two were attacked on their return. In one case the child was away only five days and the first patient was still sick. The second case was attacked eleven days after its return.

In two instances children who were thus removed were taken sick while away, one on the ninth and one on the tenth day.

Twenty-four cases of scarlet fever were removed to the hospital from families in which there were thirty-seven other children. Of the children left behind, one was taken sick in one day and one in three days, and after that these families remained free from the disease.

Scarlet Fever.

A. mary					(	Cas	ES.							UME			SES.	•		ases to
Ages.	•	1887–90.	1891–95.	1896.	1897.	1898.	1899	1900.	1901.	Total.	1887-90.	1891-95.	1896.	1897	1898.	1899.	1900.	1901.	Total.	Ratio of cases to
Jnder 1	year.	29	117	10	11	7	8	3	4	189	117	425	49	24	38	61	46	35	795	23.
1	44	39	160	34	15	9	21	20	16	314	93	362	34	19	37	57	42	42	686	45.
2 y	ears.	108	257	43	24	29	30	41	30	562	193	478	32	23	44	54	74	42	940	59.
3	4+	108	320	54	32	31	41	32	39	657	190	554	25	19	46	76	62	61	1033	63
4	••	116	309	59	35	25	60	42	27	673	186	518	26	16	42	87	58	41	974	69
5	64	91	383	61	32	41	61	42	29	740	197	621	24	13	61	88	72	46	1122	65
6	44	113	348	52	30	32	49	51	30	705	188	559	27	12	47	78	75	54	1040	67
7	**	103	326	53	32	32	47	32	22	647	169	581	23	15	48	72	57	41	1006	64
8	44	83	223	43	31	17	30	30	26	483	168	436	30	10	36	53	52	42	827	58
9	4+	74	194	27	18	19	31	22	14	399	166	380	21	17	39	53	44	25	745	53
10	**	51	157	33	14	15	17	15	13	315	96	339	19	15	38	46	29	40	622	50
11	**	43	113	23	4	10	22	11	11	237	104	252	19	16	26	49	22	20	508	46
12	"	34	104	23	8	8	10	13	10	210	104	266	22	13	21	32	22	23	503	41
10	. 6	33	69	7	6	12	5	8	6	146	83	199	24	14	23	35	22	15	415	35
14	44	21	67	11	4	8	8	5	7	131	76	191	23	19	23	35	15	18	400	32
10	44	18	41	8	2	1	6	3	4	83	67	142	13	13	12	26	13	11	297	27
10	**	12	33	8	4	1	2	5	5	70	47	<b>13</b> 9	20	16	14	18	15	13	282	
11	6.	8	28	5	3	1	5	5	4	59	33	104	15	18	12	19	15	9	225	
10	**	4	19	3	• • •	5	3	1	1	36	10	98	19	14	15	17	7	11	191	
19	"	6	17	3	5		4	• • •		35	16	86	22	12	10	17	13	2	178	
20	**	8	17			2	2	2	2	33	18	76	23	8	12	11	6	10	164	
dults		42	169	23	13	15	15	18	19	314	106	2952	838	506	510	792	566	473	6743	4
Totals		1144	2471	E02	202	290	477	401	210	7020	0.107	0750	1940		1154	1770	1207	1074	19696	25

Besides the above there were several cases in institutions.

There were two cases in the St. Vincent Asylum in April. Both were contracted outside the asylum and were removed to the Rhode Island Hospital. No other cases occurred.

At the St. Aloysius Asylum there was a case in each of the following months,

July, August, September, October, and December. The origin of these cases was not known. They were all removed to the hospital as soon as recognized.

At the Butler Hospital one of the attendants was taken sick in February and another in November. There was no known exposure. Both went to the hospital.

#### SMALL-POX.

During the year small-pox appeared at several points in Rhode Island, but Providence fortunately escaped until the latter part of May.

On Memorial day, late in the afternoon, a case was reported by Dr. J. A. O'Keefe at 27 Arthur avenue. The patient was an Italian boy named Giovanni Vendetuoli, 15 years old. He was a pupil at the Atwell's avenue school. He claimed to have been vaccinated in Italy and to have obtained from Dr. Leonard, city vaccinator, a permit to attend school. Both statements were undoubtedly true, but no satisfactory cicatrix was to be found. He began to feel ill in school on May 24th, and went home at noon. The eruption probably appeared May 26th. The patient was allowed to remain in the house over night and the house was guarded, not so much on the patient's account, as to retain the other inmates so that they might be examined and vaccinated by daylight. The next morning the patient was removed to the hospital at Field's Point which meanwhile had been made ready for him. Although a police guard was placed at both front and rear of the house three persons managed to get away, though they were all afterwards discovered, and one later developed small-pox. It has never been the policy of this department to keep suspects (persons exposed in the house and family) in confinement, but to let them go about their business and keep them under daily observation for sixteen days or more. The futility of trying to keep a large number of persons confined in a tenement house was well shown in the brief attempt made in this case. There were between 50 and 60 persons in this house, and all of them were revaccinated on the evening of May 30 or the next morning. The members of the infected family were again vaccinated a few days later. The sick-room was disinfected by burning the bedding and steaming the clothing. All the clothing of the family which was at all likely to have been exposed was also steamed. The sick-room and furniture were well sprayed with corrosive sublimate and also the stairways. Formalin was sprayed on floor, walls, and bedding in other bed-rooms and the kitchen, and the rooms were closed for the night. The floor and woodwork and furniture were also washed with corrosive sublimate. The patient suffered quite a severe attack of smallpox, and during convalescence developed a large number of superficial abscesses in all parts of his body which delayed his recovery so that he was not discharged from the hospital until July 24th. The inmates of the house were visited daily

for sixteen days. The only other case which occurred in this house was evidently contracted before the first case was removed.

On June 6th Dr. J. W. Berton reported a case at 151 Cedar street, just around the corner from 27 Arthur avenue. All communication with the Arthur avenue case was denied, but persons living at 27 Arthur avenue are known to have visited the family on Cedar street where the disease developed. The patient Maria Di Luglio, was married, 33 years old, and had been vaccinated in infancy. She had given birth to a child, Angelo, June 3. On that day she had high fever, and the midwife wished to call a physician, but the family declined. On June 5th a rash appeared. The patient was removed to the hospital together with the infant Angelo, and both were vaccinated. The disease took on the hemorrhagic form and the patient died June 8th, and was buried the same day in St. Patrick's cemetery by the officials of this department. She was visited at the hospital by her husband and a clergyman who put on outside garments before entering the building, and otherwise took the same precautions as I do in my visits. Vaccination took on the infant, and it did not have the disease, and was sent to the State Almshouse June 28th. The same methods of disinfection, vaccination, and observation of suspects was followed as at 27 Arthur avenue, and no other cases developed. There were two unvaccinated children in the family who were successfully vaccinated the day their mother was removed, and who as soon as the vaccination took were sent to St. Vincent's Asylum.

On May 28th, Pasquale Machero, 28 years old, was admitted to the general ward A, Rhode Island Hospital. He had had pneumonia a month previous and was supposed to have muscular rheumatism when admitted. On May 30th a few points of eruption appeared scattered over his body and he was thought by the visiting physician, Dr. Herbert Terry, to have small-pox. Several others, however, including both city and State health officials did not consider it small-pox, but chicken-pox. He was isolated on the hospital grounds in the Russell ward. As the history of the next case showed he probably had small-pox. He was found to be a friend of the first case mentioned. He was vaccinated on June 14th, but it did not take.

Bernard Hudson, 46 years old, was admitted to ward A, Rhode Island Hospital, May 5th, with rheumatism. On June 12th a profuse eruption appeared and he was at once removed to the Russell ward, and the next day proved to have small-pox. It now seemed entirely likely that he contracted the disease from the preceding case, Pasquale Machero, who had been in the same ward with him for two days, just thirteen days before the eruption appeared on Hudson. Both patients were removed to the Field's Point hospital on June 14th. Hudson was vaccinated in infancy and again June 13th. The latter did not take. He

died June 21st and was buried the same day in the North Burial Ground by the health department officials.

Miss X——, a nurse in the Rhode Island Hospital, was detailed to care for Machero the supposed chicken-pox patient. She was not vaccinated until June 15th the day after it was decided that Machero had small-pox. On June 16th she had the initial symptoms of small-pox, and afterwards developed a few papules which became pustules. The vaccination was successful, but Miss D—— was thought by her medical attendants to have had a slight attack of small-pox at the same time. She remained in the Russell ward until her discharge July 3d.

Ward A and the Russell ward at the Rhode Island Hospital were disinfected by burning sulphur, spraying, formalin and washing with bi-chloride. All the other patients in ward A were vaccinated, and also all physicans, nurses, and attendants. No visitors were allowed in the hospital, but patients were admitted as usual. No other cases developed in the hospital.

On June 14th, Giovanni Vendetuoli, a cousin of the first case, was seen by Dr. Cerbo, who reported the case as small-pox. He lived at 27 Arthur avenue where the first case lived, and was one of the three who escaped. He returned to another family in the same house some days later. When seen June 14th he had a scattering small-pox eruption of some day's standing. He was removed to the hospital June 14th, and was discharged July 5th. He had been vaccinated in infancy, and again June 14th. The latter did not take.

On June 14th it was rumored that a man living at 11 Knight street was sick, as some of the neighbors suspected, with small-pox, but no trace could be found of him. Later on it developed that he was was Luigi Balestra, who worked at the Crompton Loom Works. He was sick and feverish and was seen by Dr. V. L. Fitzgerald June 11th, 12th, and 13th, at which time there was no eruption. On June 14th Balestra went to New York by train and stated that he stayed with a sister in Brooklyn until June 20th. It was impossible to locate the sister in Brooklyn or to learn much of his history while there. He returned to Providence by steamer June 21st and stayed that night in bar-rooms. On June 22d he went to Dr. Fitzgerald who reported the case as small-pox. He had a fairly profuse eruption which appeared to be of about a week's duration. He was vaccinated in infancy and again during desquamation. The latter did not take. He was discharged July 6th.

On June 15th when search was unsuccessfully made for Balestra, his wife was found at their home and she and her two little children were successfully vaccinated. On June 26th she was found to have a very few pustules which appeared to be small-pox of a few days' duration. She and her children were removed to the hospital. Neither of the children had small-pox. They were discharged

July 20th. The Balestras were found to be acquainted with the other Italian patients.

On June 24th, Dr. Lace, the health officer of Burrillville, brought into the office a man 22 years old named Louis Ledeux. Dr. Lace found him on a train coming in from Georgiaville, and, recognizing in him a case of small-pox, thought the best thing to do was to bring him to this office. The eruption was in the pustular stage, and the patient was removed to the hospital. He was not sick in bed at any time and was discharged July 17th. It was not learned where the disease was contracted. The patient had never been vaccinated. He was, however, vaccinated during convalescence, but it did not take. Correspondence was entered into with the Smithfield authorities, but although Ledeux had lived in that town for a number of years they refused to pay any board or bear any of the expense of caring for him. The ear on which Ledeux came to Providence was disinfected with formalin spray and bi-chloride, and the train hands were vaccinated. No other case developed from this.

On July 1st Dr. P. Williams reported a case of small-pox at the stable owned by S. S. Atwell at Field's Point. The man's name was Asa Witter, aged 56 years. He was at once removed to the hospital, and the stable was disinfected by spraying all parts of it with either formalin or corrosive sublimate 1 to 1,000. Only a few persons had been exposed, and these were at once vaccinated, and no other case occurred. The patient was discharged cured August 12th.

There were two important points about this case. In the first place he probably contracted the disease at Field's Point. The small-pox hospital is situated at Field's Point on a bluff about 600 feet from the clam-house, where the guests are entertained during the summer months. The wharf is perhaps 300 feet from the hospital and a much used path runs along the foot of the bank about 200 feet from the hospital. There are fifteen or twenty summer cottages from 500 to 1,000 feet from the hospital, and a much used road about 450 feet distant. I have never, however, believed that there was any danger to the public who are thus brought into what might be considered close proximity to small-pox, provided, of course, that the public kept away from the hospital, and its inmates had no direct communication with outsiders. Contrary to the belief of many I have never thought there was any danger of the poison of small-box being carried any distance in the open air. This view is substantiated by our experience at Field's Point. During several summers the hospital has been occupied and hundreds and sometimes thousands of persons have passed daily within a few hundred feet of it, and this too, when convalescents were out of doors upon the grounds, and as was stated above, a considerable number of cottagers live within a short distance. Among all these people no case of small-pox has ever occurred until the one now under consideration. As Witter worked in the stable about 600 feet

from the hospital. He had broken his arm about three weeks previous to his attack and had had no opportunity for exposure other than at Field's Point. After his arm was broken he could, of course, do very little work, but he visited daily the pig-pen which is about seventy-five feet from the hospital. He had previously had small-pox and believing himself immune and being acquainted with the attendants at the hospital there is little doubt that to while away time which hung heavy on his hands, he made one or more visits to that place.\*

The second fact of interest is that this was a second attack of the disease. As a Witter had two brothers who were physicians, as was also his father. One of the brothers, W. F. Witter, writes me that when Asa was about seventeen or eighteen years old an older brother who was then practicing medicine, contracted small-pox from cases he was attending and came home sick, and that he, W. F. Witter, and Asa, both contracted it from him. Asa was not, however, very sick.

In August a child stopped in Providence for a few days on the way from Nova Scotia to Cleveland. The day after leaving here he was taken sick, and, on arrival at Cleveland, was found to have small-pox. Every one who had been in contact with him in Providence was vaccinated and no other cases developed here, though two did in Cleveland. The case was evidently contracted on the Nova Scotia steamer, which was afterwards learned to have had a case of the disease on board at that time.

From the time of closing the hospital August 12th, no case of small-pox was reported in the city until December 23d. Early in the morning on that date one of the inmates of Marks' lodging house at the corner of South Main and Crawford streets, reported to the policeman on the beat that there was a case of small-pox in the house. The police surgeon was at once notified, and he, in turn, notified this department. The case proved to be small-pox and was removed to the hospital at about 2 P. M. The delay was occasioned by the time needed to turn on the water at the hospital, overhaul the plumbing, heat the building, get the nurse and assistant and purchase provisions. The patient, Louis Bramble, an American, had been in Boston, or its vicinity, from December 3d to December 10th, and probably contracted the disease there as there was much smallpox in Boston at the time. He was taken sick December 17th in the evening, and stated that he first noticed an eruption December 21st. When seen, December 23d, the eruption was papular, but beginning to vesiculate. It was discrete, but fairly copious. He was thirty-nine years old and said that he had never been vaccinated, but a small cicatrix at the insertion of the left deltoid may have represented an early vaccination. This man had remained in the lodging house from December 17th to December 23d, and during all this time the house was

<sup>\*</sup>It has since been learned from unquestionable evidence that this was the fact.

full of lodgers. On the night of the 22d there were probably 150 there. About half of these went away before a guard was placed. The chief of police promptly placed a guard on this and all the other lodging houses, and they were all visited and the inmates vaccinated. This inspection and vaccination was repeated in the evening, and probably most of those exposed were vaccinated. The lodging houses were then inspected nightly during the larger part of the winter.

After the patient was removed the bedding he used was burned, and the room and stairways sprayed and washed with formalin and corrosive sublimate.

The cost of caring for the ten patients during the summer outbreak was \$1,041.03. Besides this expense there was spent about \$1,500 for vaccinating, making the total cost of the outbreak about \$2,500.

## THE TEACHING OF CLEANLINESS.

It has for sometime been apparent to me that the chief factor in the spread of of diphtheria, scarlet fever, small-pox, and other communicable diseases, is the mild unrecognized cases. These cases are much more common than is generally supposed, and many times the persons do not appear in the least sick, though they are dangerously infected and may give the disease to others. It is impossible to find more than a small proportion of these cases, and, when they are found, it is very difficult, if not impossible, to keep them in isolation. If this danger from unrecognized cases is as great as I believe it is, it is important to know how it may be guarded against. In diphtheria it is well established that the bacteria which cause the disease are contained in the secretions of the mouth and nose. It is extremely probable that the same is true of scarlet fever, measles, influenza, and small-pox. While in the latter stages of scarlet fever, measles, and smallpox, the virus is doubtless given off from the surface of the skin, in the early stages before the eruption appears, and before the disease is recognized, the danger lies chiefly in the secretions of the mouth and nose. Now it is quite certain that the germs of these diseases are not carried through the air from the breath of one person to another, but it is through direct contact as in kissing, or through the medium of pencils, tumblers, spoons, pins, money, handkerchiefs, moistened fingers, etc., that the saliva and nasal secretions are carried from one person to another. Personal hygiene as well as common decency requires that every one should avoid those habits which tend to convey the secretions from mouth to mouth. It seems, therefore, a useful work for public hygiene to teach the facts and principles here involved. This matter was last year brought up at a meeting of the Massachusetts Association of Boards of Health, and a committee of which I had the honor to be a member came to the following conclusions as to ways in which these matters might be taught:

- 1. By the instruction of teachers by an annual lecture or talk. The Teachers' Institute furnishes an excellent opportunity for this.
- 2. By the distribution annually to teachers of a circular, a model for which is herewith presented.
- 3. If the town or city desires cleanliness and refinement taught, it must itself teach by example.

The free text-book system presents some obstacles to the development of the idea of privacy of personal property, but with care they can be overcome. Even with this system the pupil can in most instances have its own books, pencils, and slates for a term or year, and be held responsible for their condition. This should always be done so far as possible with everything that is furnished by the school department for the use of pupils. It entails more trouble for the teachers, particularly in the care of pencils, penholders, etc.; but with a proper system and some care these may be kept separate for each child. When books become decidedly soiled, they should be destroyed.

The use of modelling clay, if it is passed from one pupil to another, is objectionable, as it certainly gathers dirt from the hands. But, if each pupil's clay is kept separate, as is done in many schools, its use may be permitted. Children must not be allowed to use their saliva on their slates. Each child may be provided with its own sponge or cloth, and must not be allowed to use anything else for erasing. This is entirely practicable, and is frequently done. There are several reasons why it would be advantageous to abolish the use of slates, and the chief objection to this appears to be the expense. Nevertheless, the use of slates has been done away with in many schools; and it is recommended that this be done wherever possible.

The drinking-cup is perhaps the most common means of transmitting saliva from one to another, and its use should be abolished if possible. Separate drinking-cups might be provided either by the pupils or by the city school department. The use of a special style of drinking fountain to be used without cups has been recommended, but with this the committee has no experience.

With these conclusions I heartily agree. Many of the matters referred to have already received attention in Providence and others should. Drinking-cups are still used in common in many schools, and this custom ought to be abolished.

The circular prepared by the committee and slightly changed, was last fall distributed to all the teachers in the public schools. It is printed below:

HEALTH DEPARTMENT, SUGGESTIONS FOR THE TEACHING OF CLEANLINESS AMONG SCHOOL CHILDREN.

The poisons of some of the common and also of some of the most loathsome diseases are frequently contained in the mouth. In such cases anything which is moistened by the saliva of the infected person may, if it touches the lips of another convey the disease. The more direct the contact the greater the danger.

It is the purpose of health officials to keep in isolation all persons having communicable disease during the time that they are infectious. But in many cases this is impossible. Little restraint is put on certain mild diseases as measles, whooping cough, chicken-pox, and mumps, and even such diseases as diphtheria,

scarlet fever and tuberculosis are frequently so mild as to be unnoticed, and children affected with them mingle freely with others. It is probable that in such cases one of the chief vehicles of contagion is the secretion of the mouth and nose. It is believed that much can be done to prevent contagion by teaching habits of cleanliness. But if such instruction is to be effectual it must be continuous. The teacher must notice and correct violations of those rules as habitually as the violation of the more formal school rules are corrected.

Even if the question of disease and contagion did not enter into the matter at all the subject ought to be given more attention by teachers. Our schools should not only teach reading, writing, and arithmetic, but it is perhaps quite as important that they should inculcate cleanliness, decency, refinement, and manners. Cleanliness should be taught for its own sake even if it had no relation whatever to health.

#### TEACH THE CHILDREN.

Not to spit; it is rarely necessary. To spit on a slate, floor, or sidewalk, is an abomination.

Not to put the fingers into the mouth.

Not to pick the nose.

Not to wet the finger with saliva in turning the leaves of books.

Not to put pencils into the mouth or moisten them with the lips.

Not to put money into the mouth.

Not to put pins into the mouth.

Not to put anything into the mouth except food and drink.

Not to swap apple cores, candy, chewing gum, half eaten food, whistles or bean blowers or anything that is habitually put in the mouth.

Teach the children to wash the hands and face often, See that they keep them clean. If a child is coming down with a communicable disease, it is reasonable to believe that there is less chance of infecting persons and things if the hands and face are washed clean, and not doubed with the secretions of the nose and mouth.

Teach the children to turn the face aside when coughing and sneezing, if they are facing another person.

Children should be taught that their bodies are their own private possessions, that personal cleanliness is a duty, that the mouth is for eating and speaking, and should not be used as a pocket, and the lips should not take the place of fingers.

PROVIDENCE, May, 1901.

# Population.

Census,	June	1, 1890	32,146
4.6	Jan.	1, 1893	18,944
4.4	June	1, 1895	5,472
4.4	June	1, 1900	5,597

## Area.

## 18.29 square miles.

## Assessed Valuation.

	1900.	1901.
Real estate	\$149,094,840 00	\$151,533,940 00
Personal estate	43,022,400 00	41,267,920 00
Total	\$193,117,240 00	\$192,801,860 00
Total amount of all tax	3,073,875 84	3,084,829 76
Water an	d Sewers.	
Miles of water pipes	324.157*	330.639*
Number of service pipes in use	21,566	22,186
Number of meters in use	17,813	18,544
Average daily consumption of water	10,131,489 gals.	10,734,700 gals.
Miles of sewers	180.423	184.666
Number of sewer connections	15.576	16.277

- 1. SCITUATE.
- 2. Alberto E. Wood, health officer.
- 3. There were no epidemics in this town during the year.
- 7. No sanitary inspections were made during the year.
- 8. No unhealthy localities in this town are known.
- 9. All public nuisances, unsanitary premises, etc., are reported to the town council.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
- 11. William H. Poole, Adelbert L. Wood, and William F. Angell are the ice dealers of this town.
  - 1. SMITHFIELD.
  - 2. Jencks Smith, health officer.
- 3. The contagious diseases reported during the year were as follows: diphtheria, three; scarlet fever, twenty-three; typhoid fever and small-pox, one each. Most of these cases were in the village of Georgiaville.

<sup>\*</sup> Besides 5.569 for fire purposes.

- 4. Isolation was maintained.
- 5. All of the sick were isolated.
- 6. All the privies and cesspools on the infected premises were inspected.
- 7. Sanitary inspections were made during the year.
- 8. The village of Georgiaville is the only unhealthy locality known in this town.
- 9. All public nuisances, unsanitary premises, etc., are reported to the town council.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
  - 11. William Winsor and Arthur Gould are the ice dealers of this town.
  - 1. WOONSOCKET.—No report from the health officer.

## WASHINGTON COUNTY.

- 1. Charlestown.
- 2. Milton Duckworth, M. D., health officer.
- 3. Scarlet fever was quite prevalent during the month of December there being six cases, none of which, however, were fatal.
  - 4. Isolation was maintained.
  - 5. All of the sick were isolated.
- Inspections of premises where sickness prevailed were made but nothing of an unsanitary nature could be found.
- 7. One sanitary inspection was made at Quonocontaug Beach. There was found there garbage piled up behind buildings where it had been all summer. This was ordered removed.
  - 8. No unhealthy localities in this town are known.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
- 11. J. C. Tucker of Carolina and Samuel Green of Cross Mills are the ice dealers of this town.

EXETER has no health officer.

1. Hopkinton.—No report from the health officer.

- 1. Narragansett.
- 2. Solomon H. Hale, health officer.
- 3. There were no epidemics in this district during the year.
- Inspections of premises where sickness prevailed were made. This was
  done daily during the summer months and anything unsanitary was rectified at
  once.
- 7. A large amount of mussels was washed upon the beach one day. This was removed at once.
  - 8. No unhealthy localities in this district are known.
- All public nuisances, unsanitary premises, etc., are reported to the district council.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this district.
  - 11. Browning and Griffin are the ice dealers of this district.
  - 1. North Kingstown.
  - 2. Harold Metcalf, M. D., health officer.
  - 3. Few, if any, contagious diseases were reported during the year.
  - 4. Isolation was maintained in the compact part of the town.
  - 5. All of the sick were isolated.
- 6. Occasionally inspections of premises where sickness prevailed were made upon complaint.
- 7. Sanitary inspections of out-houses, cesspools, etc., were made at my own option.
  - 8. No unhealthy localities in this town are known.
- All public nuisances, unsanitary premises, etc., are reported to the town council.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town, but 1 consider the water supply of the village of Saunderstown poor.
- 11. Rose & Artist, of Saunderstown, John Maglone, of Allenton, and James Brayman, and W. George Orpen, of Wickford, are the ice dealers of this town.
  - 1. RICHMOND.
  - 2. Charles A. Fuller, health officer.
- 3. The contagious diseases reported were as follows: typhoid fever, three, and scarlet fever, two. No deaths resulted from either of these diseases.

- 4. Isolation was maintained.
- 7. Sanitary inspections were made during the year.
- 9. All public nuisances, unsanitary premises, etc., are reported to the town council.
- 10. There has been, to my knowledge, no contamination of the water, milk or ice supplies of this town.
  - 11. S. R. Avery and John Smith are the ice dealers of this town.
  - 1. South Kingstown.
  - 2. Daniel T. Carr, health officer.
- 3. The only contagious disease reported during the year was typhoid fever, there being sixteen cases of that disease with four deaths.
  - 4. Isolation was not maintained.
  - 5. None of the sick were isolated.
- 6. Inspections of premises where sickness prevailed were made and water was analyzed, but was unable to trace cause.
  - 7. No sanitary inspections were made during the year.
  - 8. No unhealthy localities in this town are known.
- 9. All public nuisances, unsanitary premises, etc., are reported to the town council.
- 10. There has been, to my knowledge, no contamination of the water, milk, and ice supplies of this town.
  - 11. George F. Priday is the ice dealer of this town.
  - Westerly.—No report from the health officer.

# WATER SUPPLIES.



# EXAMINATION OF WATER SUPPLIES.

Since 1894 the Board has made monthly analyses of the water supply of the city of Providence, taken from the Pawtuxet river.

The samples have been taken at three different points: At the Pettaconset pumping station; at Washington Village, on the south branch, at a point above any known source of contamination; and at the village of Hope, on the north branch of the river, above any possible source of contamination from villages, residences, or manufacturers.

These reports have been of considerable service in determining the quality of the supply at various points, and permitting of comparison as to their value and the possibility of pollution at any point between the sources of supply and the intake.

At a time when the question as to the necessity of filtering the supply before serving it to the city arose, a proposal that it might be more desirable to take the supply direct from reservoirs to be constructed on one of the branches of the river above possible sources of pollution was presented. By reference to the published results of these examinations, it was determined that a vast amount of contamination entered the water between the two upper branches, and at the intake or pumping station. This arises largely from the surface drainage from fields and villages along the stream, and from the large amount of sediment which has accumulated in the bed of the river.

While the stream is running evenly the sediment is caught in the various reservoirs at the dams connected with the various industries along the banks of the stream. As soon as a mill starts up a rush of water follows, stirring up and carrying along the sediment which

was lying in the shallow stream. This mixture is received at the pumping station, giving a polluted water.

Owing to the distance of the heads of the river, however, and to the probable excessive cost of acquiring control of the water shed, the proposition of obtaining a supply from the upper branches was left in abeyance.

An examination of this water supply has been made by the engineer's department of the city of Providence for many years, one sample being taken on the first and fifteenth of every month. All of the above examinations since 1894 will be found in detail by months in the previous reports of the Board. The average of the several years will be found in this report in conjunction with the monthly reports.

While the supply of the city of Providence is the largest and most important of any in the State, inasmuch as it supplies the largest population, it was believed by the Board that it was equally important that all potable public water supplies in the State should be examined periodically, first to determine their fitness as a drinking water, and, second, to be posted as to any change which might take place in the character of the water at any time and especially in the presence of an epidemic of any water-bourne disease, as the Board would be in a position to determine if any deterioration in the character of the water had occurred at the time and if it might have any influence in the production of the epidemic.

By being able promptly to determine that the water had no influence in this way, the inspector would be in a position to seek other sources of danger more promptly and with greater assurance.

Accordingly as a result of an application to the legislature in 1900, an increased appropriation was made available, wherewith the Board was enabled to equip a complete chemical laboratory and to obtain the services of a competent chemist.

Mr. Ernest F. Badger, a graduate of the Massachusetts Institute of Technology, and who had been associated with the Massachusetts State Board of Health at the Lawrence Experiment Station, has

creditably acted as chemist and assisted with suggestions in the selection of samples and in the management and care of the sewage disposal plants of the three cities which purify their waste waters.

Arrangements to make the bacteriological examinations in connection with the work already executed by it in examination of sputum and diphtheria cultures were made with the Rhode Island Laboratory.

In addition to the examination of the three supplies from the Pawtuxet river, a sample of this supply was taken from the tap in the laboratory in the centre of the city, located about six miles from the point where the Pettaconset sample was taken.

In addition, also, monthly samples have been examined of samples of water taken from the several towns having a public water service.

The results are given by months for each supply.

Also in groups by averages for different years where the supplies came from the same neighborhood. In many cases different supplies may be taken by consumers on the same streets or in the same towns.

A final table is given in which the annual averages for the year are given, that comparison may be made with all the supplies.

Chemical Examinations of the Water Supply of the City of Providence, taken from the Pawtuxet River, at the Pettaconset Pumping Station, by the Engineering Department of the City of Providence, by months, on the first and fifteenth of each month, for the year 1901.

							_			
Date.	Total Residue.	Organic and Volatile Matter.	Mineral Matter.	Common Salt.	Albuminoid Ammonia.	Ready- formed Ammonia.	Nitrogen in Nitrates.	Nitrogen in Nitrites.	Color.	Alkalinity.
January 1	52	24	28	9.22	.28	.06	.70	0	.45	7.50
January 15	49	21	28	9.55	.22	.04	.70	0	.40	8.00
February 1	55	20	35	8.89	.28	.06	.70	0	.35	7.50
February 15	62	22	40	7.24	.25	.06	.60	trace	.30	9.90
March 1	55	19	36	8.56	.24	.06	.60	trace	.30	9.50
March 15	40	21	19	3,25	.24	.08	.60	0	.50	4.00
April 1	36	13	23	7.24	.26	.06	.70	0	.45	4.50
April 15	41	16	25	7.24	.20	.05	.70	0	.45	5.25
May 1	34	20	14	7.57	.17	.02	.60	0	.45	6.00
May 15	39	13	26	9.22	.24	.03	.60	0	.55	6.40
June 1	38	15	23	6.26	.19	.03	.65	0	.60	5 55
June 15	43	16	27	10.54	.20	.06	.60	0	.55	8.00
July 1	44	20	24	8.24	.22	.08	.60	0	.50	8.00
July 15	50	25	25	7.24	.19	.03	.60	0	.50	9.25
August 1	55	21	34	9.22	.30	.08	.45	0	.45	9.00
August 15	41	20	21	8.89	.32	.06	* .30	0	.45	9.50
*September	54	24	30	9.22	.28	.06	.20	0	.55	8.70
September 16	60	32	28	9.55	.23	.19	.30	0	.50	14.00
October 1	66	24	42	10.87	.32	.07	.30	0	.55	13.00
October 15	60	21	36	9.88	.40	.07	.30	0	1.00	11.25
November 1	72	36	36	9.55	. 10	.06	.30	trace	.60	12.75
November 15	60	36	24	9 55	.21	.04	.20	0	.50	10.50
	50	10	31	9.88	.26	.06	.70	0	.60	6.00
December 2	52 54	18 25	29	6,89	.28	.02	.60	0	.85	5.25
Average for year	51	22	29	8.49	.26	.06	.58	0	.52	8.35

<sup>\*</sup> Taken on last day of preceding month.

# WATER SUPPLY OF PROVIDENCE.

Chemical Examinations of the Pawtuxet River Water, taken at the Pettaconset Pumping Station, giving averages, by years, for twenty-six years.

[Parts (in weight) in one million parts of water (in weight).]

			weight)	, 111 (711		anie		der (in v				***************************************
,		idue.	Min Mat	eral ter.	at	id atile	Com	imon ait,	Albun	ninoid nonia.	Amm	onia.
YEAR.	Average.	Maximum.	Average.	Maximum.	Average.	Maximum.	Average.	Maximum.	Average.	Maximum.	Average.	Maximum.
1876	50	62	30	44	20	30	5.72	8.50	.24	.40	.06	.11
1877	43	56	24	33	19	24	5.46	7.09	.23	.32	.06	.12
1878	37	51	21	34	16	24	5.47	8.51	.17	.25	.04	.10
1879	38	59	24	43	14	24	5.73	10.83	.17	.23	.05	.10
1880	45	70	29	49	16	22	6.35	8.76	.22	.26	.02	.14
1881	41	55	26	40	15	21	4.95	8.07	.21	.28	.02	.05
1882	43	59	27	42	16	25	4.43	6,60	,25	.38	.03	.08
1883	47	64	30	47	17	24	4.60	7.95	.27	.36	.04	.14
1884	45	72	29	°43	16	29	4.79	7.33	.19	.32	.04	.14
1885	46	63	30	46	16	24	4.20	6.74	.22	.30	.05	.20
1886	46	59	29	44	17	25	4.14	5.95	.22	.30	.05	.14
1887	42	63	24	40	18	25	4.18	6.84	.21	.36	.04	.10
1888,	41	59	24	40	17	30	3.49	5.62	.20	.30	.05	.14
1889	38	52	22	59	17	27	2.86	4.99	.21	.30	.04	.10
1890	41	55	24	35	17	25	3.63	5,80	.24	.36	.04	.12
1891	51	107	32	74	19	33	3.99	6.52	.23	.38	.04	.14
1892	48	71	29	49	19	29	5.92	8.48	.29	. 46	.07	.20
1893	46	66	29	-46	17	22	5.27	8.89	.26	.34	.05	.12
1894	49	75	31	52	18	24	5.72	8.90	.27	.46	.04	.18
1895	46	61	29	39	18	27	5.73	8.45	.30	.48	.09	.34
1896	44	57	27	36	18	25	5.51	7.71	.28	.46	.08	.20
1897	46	61	27	40	19	28+	5.83	8.60	.27	. 36	.05	.16
1898	42	55	26	35	17	21	4.87	6.80	.24	.81	.04	.08
1899	46	64	29	42	17	28	7.98	12.18	.26	.36	.04	.09
1900	50	73	30	50	20	27	8.25	12.52	.27	.36	.06	.18
1901,	51	72	29	42	22	36	8.49	10.87	.26	.40	.06	.19
Average	45		26		18		5.25		.24		.05	
Maximum		107		74		36		12.52		.48		.34

Chemical and Bacteriological Examination of the Water Supply of the City of Providence, taken from the Pawtuxet River, at Pumping Station, at Pettaconset, collected during the second and fourth week of the month.

					(1 arts in 100,000 )												
	Агі	PEARAN	CE.	ON	ESIDI EVA	РО-		Амм	ONIA.			Nitr	OGEN.				
DATE OF					n.			Alb	umino	id.				ned.			G.
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine,	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c.
Jan. 10	v. sl.	dec.	.47	5.65	2.05	3.60	.0012	.0226	.0180	.0046	.42	.014	trace	.70	1.35	.70	3038
Jan. 24	sl.	66	.42	5.50	1.85	3.65	.0012	.0216	.0192	.0024	.40	.020	,0002	-66	1.56	.85	3410
Monthly avg.	66	66	.45	5.58	1.95	3.63	.0012	.0221	.0186	.0035	.41	.017	.0001	.68	1.46	.78	3224
Feb. 7	sl.	dec.	.31	5.90	2.05	3.85	.0016	.0194	.0158	.0056	.42	.018	trace	.63	1.27	.75	439
Feb. 22	**	mkd.	.31	5.35	1.65	3.70	.0010	.0196	.0166	.0030	.45	.014	trace	.58	1.03	.55	3472
Monthly avg.	64	6.6	.31	5.63	1.85	3.78	.0013	.0195	.0162	.0033	.44	.016	trace	. 61	1.15	.65	1956
Mar. , 7	dec.	dec.	.35	6.00	1.90	1.10	.0048	.0260	.0204	.0056	.44	.021	.0002	.66	1.76	.70	9858
Маг. 21	v. sł.	sl.	.41	4.70	2.00	2.70	.0010	.0186	.0156	.0030	.34	.011	trace	.64	.79	.30	3100
Monthly avg.	dec.	dec.	.38	5.35	1.95	3.40	.0029	.0223	.0180	.0043	.39	.016	.0001	. 65	1.28	.50	6479
April 11	v. sl.	sl.	.40	3.85	1.45	2.40	.0002	.0162	.0144	.0018	.25	.013	0	.57	.79	.40	529
April 30	6.6	6.	.38	4.05	1.65	2.40	.0002	.0164	.0136	.0028	.26	.008	0	.54	.79	.40	567
Monthly avg.		6.6	.39	3.95	1.55	2.40	.0002	.0163	.0140	. 6023	.26	.011	0	.56	.79	.40	548

Chemical and Bacteriological Examination of the Water Supply of the City of Providence, taken from the Pawturet River, at Pumping Station at Pettaconset, collected during the second and fourth week of the month.

				-													
	A Pi	PEARAN	CE.	on	EVA AT10	PO-		Аммо	NIA.			Nitro	GEN.				
DATE OF								Alb	umino	id.				ed.			°.
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c.
May 9	sl.	sl.	.40	4.60	1.70	2.90	.0002	.0200	.0186	.0014	. 33	.011	.0006	.58	1.11	.50	1839
May 22			.52	4.60	1.90	2.70	.0002	.0202	.0184	.0018	. 27	.010	trace	.67	.79	-41	1903
Monthly avg.			.46	4.60	1.80	2.80	.0002	.0201	.0185	.0016	.30	.011	.0003	.63	.95	.46	1871
June 5 June 20 Monthly avg.	sl.	sl.	.51	5.30	2.45	3.35 2.85		.0248	.0234	.0030	.33	.009	.0002	.72	1.11 1.35 1.23	.74	686
monthly avg.			, (4)	0.00	3.40	5.10	.0002	.0201	.0220	.0041	, 50	.010	.0001	. 10	1.40	.10	1000
July 11	sl.	sl.	.48	5.05	1.85	3.20	.0008	.0226	.0190	.0036	.35	.009	0	.55	1.03	.69	5509
July 25		dist.	.51	8.35	2.50	5.85	.0022	.0290	.0238	.0052	.45	.011	trace	.57	1.82	.91	1035
Monthly avg.	h.		.50	6.70	2.18	4.52	.0015	.0258	.0214	.0044	.40	.010	trace	.56	1.48	.80	1622
Aug. 8	sl.	dist.					.0016		.0204			.009	.0002				
Monthly avg.		dist.	.36	6.08	2.10	3.98	.0009	.0279	.0215	.0064	.44	.008	.0001	.53	1.70	1.06	4548

Chemical and Bacteriological Examination of the Water Supply of the City of Providence, taken from the Pawtuxet River, at Pumping Station at Pettaconset, collected during the second and fourth week of the month.

								100,0									
	App	EARAN	CE.	ON	EVA ATIO	Р0-		Амм	ONIA.			Nitr	OGEN.				
DATE OF								Alb	umine	id.				ed.			
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c. c.
Sept. 5	sl.	sl.	.39	4.60	1.25	3.35	.0000	.0262	. 0234	.0028	.44	.010	trace.	.49	1.27	1.06	10444
Sept. 27	44	dec.	.33	6.05	2.30	3.75	.0006	.0276	.0206	.0070	.50	.010	trace.	.50	1.82	1.11	3224
Monthly avg.	e c	6.6	.36	5.33	1.78	8.55	.0003	.0269	.0220	.0049	.47	.010	trace.	.50	1.55	1.09	6834
Oct. 10	dist.	dist.	.40	7.20	2.30	4.90	.0002	.0312	.0244	.0068	.54	.010	.0006	.63	1.56	1.10	19778
Oct, 24	66	dec.	.64	6.80	2.70	4.10	.0022	.0326	.0272	.0054	.54	.010	.0010	1.00	1.89	1,09	5580
Monthly avg.	6.6		.52	7.00	2.50	4.50	.0012	.0319	.0258	.0061	.54	.010	.0008	.82	1.73	1.10	12679
Nov. 7	dist.	dec.	.51	9.15	3.25	5.90	.0016	.0422	.0330	.0092	.64	.017	.0002	.98	2.21	1.83	2170
Nov, 21	64	dist.	.33	6.60	2.30	4.30	.0010	.0262	.0228	.0034	.57	.020	.0024	.76	1.76	1.33	7998
Monthly avg.		dec.	.42	7.88	2.78	5.10	.0013	.0342	.0279	.0063	.61	.019	.0013	.87	1.99	1.58	5084
Dec. 5	dist.	si.	.55	6.95	2.40	4.55	.0038	.0250	,0284	.0016	.53	.016	0	.87	1.69	.85	1842
Dec. 19	sl.	dist.	.70	6.25	2.70	3.55	.0020	.0226	.0202	,0024	.89	.025	.0010	.90	1.69	.50	2542
Monthly avg.	dist.		.63	6.60	2.55	4.05	.0029	.0238	.0218	,0020	.46	.021	.0005	.89	1.69	.68	2192
Yearly avg	sl.	sl.	.44	5.83	2.10	3.73	.0012	.0248	.0 207	.0041	.42	.013	.0003	. 67	1.41	.82	4032

Chemical and Bacteriological Examination of the Water Supply of the City of Providence, taken from the South Branch of the Pawtnet River, at Washington, above all sources of pollution from town and mill wastes, collected during the second and fourth week of the month.

(Parts in 100,000.)

							arts III										
	AP	PEARAN	CE.	ON	ESID EVA	PO-		Аммо	ONIA.			Nitro	GEN.				
DATE OF COLLECTION.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine,	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness,	Alkalinity.	Bacteria per 6, 6,
Jan. 10	v. sl.	sl.	.47	4.00	1.85	2.15	.0008	.0154	.0146	.0008	.30	.006	0	.60	.79	.50	363
Jan. 24	sl.	v. sl.	.40	3.80	1.35	2.45	.0010	.0172	.0166	.0006	.30	.004	0	.63	.79	.55	2046
Monthly avg.	**	sl.	.44	3.90	1.60	2.30	.0009	.0163	.0156	.0007	.30	.005	0	.62	.79	.53	1205
Feb. 7	v, sl.	v. sl.	.31	3.95	1.45	2.50	.0012	.0104	.0092	.0012	.33	.006	0	.45	.63	. 65	177
Feb. 21	66	sl.	.30	3.65	1.10	2.55	.0020	.0110	.0102	.0008	.32	.005	0	.37	.63	.50	169
Monthly avg.			.31	3.80	1,28	2.52	.0016	.0107	.0997	.0010	.33	.006	0	.41	.63	.58	173
Mar. 7	sl.	v. sl.	.28	3.80	1.25	2.55	.0038	.0138	.0134	.0004	.32	.007	0	.41	.63	.45	1910
Mar. 21	sl.	dist.	.45	4.35	1.95	2.40	.0024	.0202	.0152	.0050	.20	.003	0	.69	.32	.30	3162
Monthly avg.	4.6		.87	4.08	1.60	2.48	.0031	.0170	.0143	.0027	.26	.005	0	.55	.48	.38	2536
April 11	0	v. sl.	.47	3.15	1.30	1.85	.0002	.0138	.0136	.0002	.20	.001	0	.61	.24	.30	902
April 30	v. sl.	••	.50	3.25	1.45	1.80	.0002	.0136	.0128	.0008	.18	.002	0	. 60	.32	. 35	395
Monthly avg.	**		.49	3.20	1.38	1.82	2009.	.0137	.0132	.0005	.19	.002	0	.62	.28	.33	649

Chemical and Bacteriological Examination of the Water Supply of the City of Providence, taken from the South B ranch of the Pawturet River, at Washington, above all sources of pollution from town and mill wastes, collected during the second and fourth week of the month.

	Арі	PEARAN	CE.	ON	EVA ATIO	P0-		Аммо	ONIA.			Nitr	ogen.				
DATE OF					-:			Alb	umino	id.				led.			G.
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c.
May. 9	v. sl.	v. sl.	.43	4.05	1.80	2.25	.0006	.0168	.0158	.0010	.24	.004	0	.57	.32	.39	449
May, 22	6.6		.56	3.65	1.55	2.10	.0004	.0184	.6178	.0006	.25	.005	0	.71	.40	.32	368
Monthly avg.	66		.50	3.85	1.68	2.17	.0005	.0176	.0168	.0008	.25	.005	0	.64	.36	.36	409
June 5	v. sl.	sl.	.57	3.50	1.70	1.80	.0002	.0190	.0182	.0008	.23	.005	0	.73	.32	.37	128
June 20		v. sl.	.57	4.50	2.00	2.50	.0003	.0190	.0176	.0014	.27	.003	0	.66	1.19	1.03	152
Mohthly avg.		sl.	.57	4.00	1.85	2.15	.0003	.0190	.0179	.0011	.25	.004	0	.70	.76	.70	140
July 11,	v. sl.	v. sl.	.45	3.65	1.60	2.05	.0008	.0186	.0180	.0006	.27	.002	0	.55	.40	.50	4009
July 25		6.6	.40	3.25	1.20	2.05	.0008	.0204	.0196	.0008	.27	.003	0	.44	.56	.48	88
Monthly avg.	64		.43	3.45	1.40	2.05	.0008	.0195	.0188	.0007	.27	,003	0	.50	.48	.49	2049
Aug. 8	v. sl.	v. sl.	.35	3.25	1.30	1.95	.0002	.0180	.0170	.0010	.23	.001	0	.47	.48	.48	463
Aug. 22	sl.	sl.	. 37	4.05	1.45	2.60	.0006	.0202	.0186	.0016	.29	.001	0	.52	1.11	.58	971
Monthly avg.	**	**	.36	8.65	1.38	2.27	.0004	.0191	.0178	.0013	.26	.001	0	.50	.80	.53	717

Chemical and Bacteriological Examination of the Water Supply of the City of Providence, taken from the South Branch of the Pawturet River, at Washington, above all sources of pollution from town and mill wastes, collected during the second and fourth week of the month.

						(F	arts in	100,00	0.)								
	Arı	PEARAN	CE,	ox	ESID EVA ATIO	PO-		Амм	ONIA.			Nitro	OGEN.				
DATE OF								Alb	umino	id.							
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chiorine.	As Nitrates.	As Nitrites.	Охукеп.	Hardness.	Alkalinity.	Bacteria per c. c.
Sept. 5	v. sl.	v. sl.	.37	3.55	1.05	2.50	.0006	.0186	.0174	.0012	.26	.001	0	.41	.71	.71	218
Sept. 27			.36	3.90	1.15	2.75	.0006	.0160	.0158	.0002	.28	.002	0	.41	.79	.65	74
Monthly avg.			.37	3.73	1.10	2.63	.0006	.0173	.0166	.0007	.27	.002	0	.41	.75	.68	146
Oet. 10	v. sl.	v. sl.	.47	4.05	1.90	2.15	.0022	.0210	.0208	.0002	.30	.003	0	.67	.77	.52	775
Oct. 24	4.	4.6	.61	4.35	2.00	2.35	.0052	.0210	.0194	.0016	.35	.002	0	.87	1.11	.49	262
Monthly avg.	6.6	6.6	.54	4.20	1.95	2.25	.0037	.0210	.0201	.0009	.33	.003	0	.77	.94	.51	519
Nov. 7	v. sl.	v. sl	.50	3.20	3.10	1.10	.0042	.0212	.0208	.0004	.33	.003	0	.61	.55	.45	83
Nov. 21		6.6	, 35	3.70	1.45	2.25	.0028	.0128	.0126	.0002	.31	.005	0	.54	. 63	.48	241
Monthly avg.		6.	.43	3.45	1.78	1.67	.0035	.0170	.0167	.0003	.32	.004	0	.58	.59	.47	162
Dec. 5	v. sl.	v. sl.	.60	5.80	2.10	3.70	.0036	.0221	.0210	.0014	.40	.008	0	.87	.87	.45	715
Dec. 19	sl.		.66	4.30	1.85	2.45	.0016	.0168	.0162	.0006	.29	.007	0	.81	.87	.31	887
Monthly avg	4.		.63	5.05	1.98	3.07	.0026	.0196	.0186	.0010	.35	.008	0	.84	.87	.38	801
Yearly avg	v. sl.	v, sl.	.45	3.86	1.58	2.28	.0015	.0173	.0163	.0010	.28	.004	0	.59	.64	.49	792

Chemical and Bacteriological Examination of the Water Supply of the City of Providence, taken from the North Branch of the Pawtuxet River, at Hope, above all sources of pollution from town and mill wastes, collected during the second and fourth week of the month.

						(121103 11 100,000.)											
	Арі	PEARAN	NCE.	on	ESID EVA ATIO	P0-		Амм	ONIA.			Nitro	OGEN.				
DATE OF								Alt	umino	oid.				ed.			ಲೆ
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c.
Jan. 10	v. sl.	v. sl.	.33	4.30	1.30	3.00	.0006	.0120	.0118	.0002	.30	.007	0	.46	.71	.50	920
Jan. 24	66		.32	3.80	1.40	2.40	.0006	.0120	.0118	.0002	.28	.008	0	.53	.63	.60	1128
Monthly avg.	6.6	64	.33	4.05	1.35	2.70	.0006	.0120	.0118	.0002	.29	.008	0	.50	.67	.55	1024
Feb. 7	v. sl.	v. sl.	.27	3.95	1.05	2.90	.0008	.0096	.0094	.0002	.33	.006	0	.39	.70	.60	114
Feb. 21		sl.	.27	3.40	1.05	2.35	.0004	.0110	.0106	.0004	.24	.004	0	.36	.68	.50	140
Monthly avg.	6.6		.27	3.68	1.05	2.63	.0006	.0103	.0100	.0003	.29	.005	0	.38	. 67	.55	127
Mar. 7	sl.	v. sl.	.35	4.10	1.40	2.70	.0026	.0188	.0160	.0028	.30	.010	0	.49	.63	.45	lost
Mar. 21	v. sl.	sl.	.35	3,55	1.45	2.10	.0001	.0114	.0110	.0004	.20	.005	0	.41	.32	.30	2421
Monthly avg.	sl.	.:	.95	3.83	1.43	2,40	.0015	.0151	.0135	.0016	.25	.008	0	.45	.48	.38	
April 11	0	v. sl.	.85	3.00	1.10	1.90	.0002	.0136	.0116	.0020	.17	.001	0	.44	. 32	.30	395
April 30	v. sl.		.36	3.25	1.30	1.95	.0002	.0122	.0112	.0010	.20	.003	0	.45	.32	.35	1151
Monthly avg.	6.6		.36	3.13	1.20	1.93	.0003	.0129	.0114	.0015	.19	.002	0	.45	.32	.33	773

Chemical and Bacteriological Examination of the Water Supply of the City of Providence, taken from the North Branch of the Pawtuxet River at Hope, above all sources of pollution from town and mill wastes, collected during the second and fourth week of the month.

					-		arts										
	AP	PEARAN	vce.	ON	EVA ATIO	PO-		Амм	ONIA.			Niti	OGEN.				
DATE OF		12			Loss on Ignition.			All	nomino.	1		ites.	tes.	Oxygen Consumed.	oč.	ty.	per c. c.
	Turbidity.	Sediment.	Color.	Total.	Loss on	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen	Hardness.	Alkalinity.	Bacterla per c.
May 9	v. sl.	v. sl.	.35	4.05	1.30	2.75	.0002	.0142	.0132	.0010	.25	.005	0	.45	.56	. 44	325
May 22	6.6	trace.	.50	3.50	1.35	2.15	.0002	.0160	.0158	.0002	.20	.005	0	.60	.48	.48	561
Monthly avg.		v. sl.	.43	3 78	1.33	2.45	.0002	.0151	.0145	.0006	.23	.005	0	.53	.52	.46	443
June 5	v. sl.	v. sl.	.42	4.00	1.75	2.25	.0002	.0148	.0136	.0012	.20	.005	0	.52	.48	.48	316
June 20	**	**	.41	3.45	1.60	1.85	.0002	.0122	.0120	:0002	.22	.003	0	.50	.63	. 55	864
Monthly avg.		••	.42	3.73	1.68	2.05	.0002	.0135	.0128	.0007	.21	.004	0	.51	.56	.52	590
July 11	v. sl.	v. sl.	.40	3.90	1.55	2.35	.0008	.0188	.0170	.0018	.25	.004	0	.50	.63	.63	1364
July 25	**		.40	3.80	1.55	2.25	.0008	.0192	.0190	.0002	.22	.003	0	.47	.63	.65	25
Monthly avg.		44	.40	3.85	1.55	2.30	.0008	.0190	.0180	.0010	.24	.001	0	.49	.63	.64	695
Aug. 8	v. sl.	v. sl.	.35	3.55	1.25	2.30	.0002	.0184	.0180	.0004	.24	.003	0	.48	.55	.55	2038
Aug. 22	**		.35	4.45	1.70	2.75	.0002	.0192	.0176	.0016	.23	.002	0	.51	1.27	.68	154
Monthly avg.	**	**	.35	4.00	1.48	2.52	.0002	.0188	.0178	.0010	.24	.003	0	.50	.91	.62	1096

Chemical and Bacteriological Examination of the Water Supply of the City of Providence, taken from the North Branch of the Pawtuxet River, at Hope, above all sources of pollution from town and mill wastes, collected during the second and fourth week of the month.

	Арг	PEARA	NCE,	ON	ESID EVA	Po-		Аммо	OMIA.			Nitre	OGEN.				
Date of				R		N.		Alt	oumine	oid.				ed.			
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites,	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c. c.
Sept. 5	v. sl.	v. sl.	.36	3.85	1.45	2.40	.0006	.0184	.0174	.0010	.21	.004	0	.46	.71	.73	159
Sept. 27	**		.30	4.35	1.45	2.90	.0002	.0148	.0136	.0012	.28	.003	0	.36	.95	.65	173
Monthly avg.	i.	66	.33	4.10	1.45	2.65	.0004	.0166	.0155	.0011	.25	.004	0	.41	.83	.69	166
Oct. 10	v. sl.	v. sl.	.54	5.15	2.25	2.90	.0002	.0228	.0218	.0010	.29	.005	0	.85	.95	.50	198
Oct. 24		٠.	.69	5.10	2.05	3.05	.0006	.0212	.0198	.0014	.37	.005	0	.91	1.08	.53	311
Monthly avg.	**	: .	.62	5.13	ર.15	2.98	.0004	.0220	.0208	.0012	.33	.005	0	.88	1.02	.52	255
Nov. 7	v. sl.	v. sl.	.37	3.55	1.50	2 05	.0006	.0142	.0134	.0008	.32	.065	0	.49	.71	.60	208
Nov. 21		trace.	.28	3.90	1.35	2.55	.0006	.0120	.0108	.0012	.32	.005	0	.51	.79	.58	513
Monthly avg.	£ t	v. sl.	.33	3.78	1.48	2.30	.0006	.0131	.0121	.0010	.32	.005	0	.50	.75	.59	361
Dec. 5	v. sl.	v. sl.	.55	4.65	1.65	3.00	.0010	.0176	.0170	.0006	.26	.006	0	.77	.71	. 45	1099
Dec. 19	sl.	trace.	.62	3.70	1.95	1.75	.0008	.0144	.0136	.0008	.29	.007	0	.78	.87	.35	1896
Monthly avg.	44	v. sl.	.59	4.18	1.80	2.38	.0009	.0160	.0158	.0007	.28	.007	0	.78	.79	.40	1248
Yearly avg	v. sl.	v. sl.	.79	3.93	1.49	2.44	.0005	.0154	.0145	.0009	.26	.004	0	,58	.68	.52	694

Chemical and Bacteriological Examination of the Water Supply of the City of Providence, taken from the Tap in the Laboratory of the State Board of Health in Providence, during the second and fourth week of the month.

		400 m = 7															
	Арі	'EARAN	CE.	on	RSID EVA	PO-		Аммо	ONIA.			Nitr	OGEN.				
DATE OF								Alb	umino	id.				ed.			
Collection.	Turbidity.	Sedlment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites,	Oxygen Consumed	Hardness,	Alkalinity.	Bacterla per c. c.
Aug. 8	sl.	sl.	.33	5.60	1.60	4.00	.0002	.0188	.0178	.0010	.45	.011	trace.	.40	1.69	1.15	122
Aug. 22	v, sl.	v. sl.		5.70			.0002	.0190	.0172	.0018	.44	.018	trace.		1.95		
Monthly avg.	sl.	sl.	.33	5.65			.0002	.0189	.0175	.0014	. 45		trace.		1.82		
Sept. 5	v. sl.	sl.	. 35	6.05	1.80	4.25	.0008	.0216	.0174	.0042	.44	.010	trace.	.41	1.56	.95	363
Sept. 27	sì.	dist.	.26	6.80	1.90	4.90	.0000	.0216	.0164	.0052	.50	.012	trace.	.36	1.82	1.10	4650
Monthly avg.		**	.31	6.43	1.85	4.58	.0004	.0216	.0169	.0047	.47	.011	trace.	.39	1.69	1.03	2507
Oct. 10	v. sl.	v. sl.	-31	7.35	2.10	5.25	.0000	.0220	.0212	.0008	.54	.010	.0002	.48	1.69	1.12	882
Oct. 24	dist.	dec.	.56	6.30	2.15	4.15	.0012	.0266	.0198	.0068	.54	.010	0	.74	1.82	.97	229
Monthly avg.	4.6		.44	6.83	2.13	4.70	.0006	.0243	.0205	.0038	.54	.010	.0001	.61	1.76	1.05	556
Nov. 7	sl.	sl.	. ĩ	6.70	1.95	4.75	.0006	1 320.	.0234	.0030	.56	.010	trace.	.67	1.82	1.05	298
Nov. 21		dist.	. 35	6.00	1.80	4.20	.0008	.0242	.0212	.0030	.53	.010	.0006	.66	1.69	1.00	4836
Monthly avg.	*1	**	.41	6.35	1.88	4.47	.0007	.0253	.0223	.0030	•55	.010	.0003	.67	1.76	1.03	2567
Dec. 5	sl.	sl.		5.95	2.05	3.90	.0006	.0224	.0200	.0024	. 49	.016	trace,	.75	1.56	.75	2604
Dec. 19	dist.	v. sl.	.70	5.35	2.35	3.00	.0006	.0214	.0190	.0021	.40	.020	.0002	.81	1.50	.55	5535
Monthly avg.		sl.	.58	5.65	2 20	3.45	.0006	.0219	.0195	.0024	.45	.018	.0001	.80	1.53	.65	2418
Yearly avg	sl.	sl.	.41	6.18	1.93	4.25	.0005	.0224	.0193	.0031	.50	.013	.0001	.57	1.71	.96	S161

Chemical and Bavteriological Examination of the Water Supply of the City of Providence, giving the Average for the Years 1900-1901 Grouped for Comparison of the Quality of the Water at Different Points of the Supply.

		ON	EVA ATIO:	PO-		Амм	ONIA.			Nitr	OGEN.				
DATE OF			n.			Alb	ouming	id.				ned.			· 0
Collection.	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution,	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c. c.
Pettaconset—															
1900	.45	5.78	1.90	3.88	.0014	.0222	.0182	.0040	.46	.014	.0003	.56	1.45	1.00	3395
1901	.44	5.83	2.10	3.73	.0012	.0248	.0207	.0041	.42	.013	.0003	.67	1.41	.82	4032
Washington-															
1900	.46	3.73	1.49	2.24	.0017	.0173	.0164	.0009	.28	.006	-0000	.55	.61	.59	1072
1901	.45	3.86	1.58	2.28	.0015	.0173	.0163	.0010	.28	.004	0000	.59	.64	.49	792
Норе—															
1900	.39	3.60	1.38	2.22	.0007	.0155	.0142	.0013	.25	.007	.0000	.48	.68	.62	536
1901	.79	3.93	1.49	2.44	.0005	.0154	.0145	.0009	.26	.004	.0000	.53	.68	.52	694
Laboratory Tap-															
1900															
1901	.41	6.18	1.98	4.25	.0005	.0224	.0198	.0031	.50	.018	.0001	.57	1.71	.96	8161

Chemical and Bacteriological Examination of the Water Supply of the Pawtuxet Valley, controlled by the Pawtuxet Valley Water Company, the sample being taken in the village of Riverpoint.

	APP	PEARAN	CE.	ON	EVA ATIO	P0~		Аммо	ONIA.			Nitro	OGEN.				
DATE OF								Alb	umino	id.				ed.			c,
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c. c
Jan. 15	0	v. sl.	.25	4.80	2.20	2.60	.0008	.0160	.0138	.0022	.47	.027	0	.38	1 11		69
Feb. 26	v. sl.		.21	4.40	1.10	3.30	.0008	.0116	.0112	.0004	.55	.021	0	.28	1.27	.60	49
Mar. 19		0	.25	3.60	1.35	2.25	.0060	.0128	.0128	.0000	.38	.032	0	.35	.79	.40	916
April 17	61	v. sl.	.22	3.30	1.35	1.95	.0002	.0116	.0104	.0012	.32	.019	0	.33	.32	.30	69
May 14	0	trace.	.24	2.90	.95	1.95	.0000	.0134	.0130	.0004	.31	.005	0	.36	. 63	.50	495
June 10	0		.30	3.15	.85	3.30	.0006	.0144	.0142	.0002	.26	.006	0	.38	.48	.58	17546
July 22	0		.35	3.70	1.75	1.95	.0002	.0168	.0166	.0002	.26	.010	0	.34	.63	.70	27
Aug. 26	0	v. sl.	.30	2.85	1.00	1.85	.0002	.0166	.0164	.0002	.27	.003	0	.29	.71	.70	178
Sept. 9	v. sl.	0	.22	1.00	2.20	1.80	.0006	.0170	.0165	.0002	.28	.024	0	.31	.63	.65	111
Oet. 14	0	v. sl.	.20	3.45	1.50	1.95	.0002	.0166	.0160	.0006	.33	.003	0	. 29	.85	.67	5081
Nov. 18	v. sl.	trace.	.21	3.25	1.20	2.05	.0008	.0170	.0170	.0000	.38	.005	0	.34	.87	.70	181
Dec. 16	sl.	v. sl.	.34	3.85	1.35	2.50	.0011	.0166	.0162	.0001	.35	.025	0	148	.95	.58	2914
Dec. 23	6.6	sl.	.50	4.30	1.75	2.55	.0026	.0220	.0192	.0028	.40	.024	0	.69	.95	.50	lost.
Dec. 23			.45	3.85	1.65	2.20	.0022	.0202	.0184	.0018	.38	.025	0	.62	.95	.50	2790
Monthly avg.	**		. 43	4.00	1.58	2.42	.0021	.0196	.0179	.0017	.38	.025	0	.60	.95	.58	2852
Yearly avg	v. sl.	v. sl.	.29	3.67	1.44	2.23	-0012	.0159	.0151	.0008	.35	.016	0	.40	.80	.57	2341

Chemical and Bacteriological Examination of a Water Supply in the Pawtuxet Valley, taken from a supply known as Knight's Spring or Fountain, the sample being taken in the village of Riverpoint.

	APP	EARAN	CE,	ON	EVA AT101	Р0-		Аммо	NIA.			Nitro	ogen.				
DATE OF								Alb	umino	oid.				d.			
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension,	Chlorine,	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c c.
Jan. 15	0	0	0	4.85	1.10	3.75	.0000	.0030	.0030	.0000	.78	.280	0	.01	1.95	.30	151
Feb. 26	0	0	0	5.55	1.90	3.65	.0000	.0034	.0034	.0000	.72	.280	0	.00	1.95	.30	26
Mar. 19	0	0	0	5.60	1.65	3.95	.0002	.0030	.0030	.0000	.88	.320	0	.00	1.95	.20	140
April 17	0	0	0	7.10	3.00	4.10	.0000	.0024	.0024	.0000	.91	.400	0	.01	2.40	.30	43
May 14	0	0	0	7.10	2.75	4.35	.0000	.0016	.0016	.0000	.80	.300	0	.01	2.08	.30	206
June 10	0	0	0	6,20	2.45	3.75	.0000	.0012	.0012	.0000	.72	.280	0	.00	2.02	.30	640
July 22	0	0	0	6.00	2.50	3.50	.0000	.0018	.0018	.0000	.69	.280	0	.01	1.69	.44	211
Aug. 26	0	0	0	6.10	1.75	4.35	.0000	.0010	.0010	.0000	.70	.260	0	.00	1.82	.40	16605
Sept. 9	0	0	0	6.90	2.05	4.85	.0000	.0014	.0014	.0000	.66	.260	0	.00	1.95	.40	435
Oct. 14	0	0	0	6.05	2.35	3.70	.0000	.0012	.0012	.0000	.72	.300	0	.01	1.89	.36	435
Nov. 18	0	0	0	6.15	2.35	3.80	.0000	.0020	.0020	.0000	.78	.320	0	.01	1.95	.30	132
Dec. 16	0	0	0	7.90	2.60	5.30	.0032	.0020	.0020	.0000	1.08	.458	.0005	.03	2.41	.30	2015
Dec. 23	0	0	0	7.55	2.40	5.15	.0014	.0022	.0023	.0000	1.12	.440	trace.	.03	2.28	.28	46
Monthly avg.	0	0	0	7.73	2.50	5.23	.0028	.0021	.0021	.0000	1.10	.449	.0003	.03	2.35	.29	1031
Yearly avg	0	0	0	6.39	2.22	4.17	.0004	.0020	.0020	.0000	.81	.821	0	.01	2.03	,82	1622

Chemical and Bacteriological Examination of a Water Supply in the Pawtuxet Valley, controlled by the Coventry Water Company, the sample being taken in the village of Arctic Centre.

						(1)	arts in	1 100,00									
	Арі	PEARAN	CE,	ON	EVA ATIO	Po-		Азімо	ONIA.			Nitro	OGEN.				
DATE OF					,			Alt	umino	id.				ed.			°.
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites,	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c. e
Jan, 14	0	0	,05	2.30	.75	1.55	.0008	.0084	.0084	.0000	.30	.004	0	.08	.32	.20	29
Feb. 26	0	0	.02	2.40	.80	1.60	.0002	.0082	.0082	.0000	.32	.000	0	.09	.82	. 25	13
Mar. 19	0	0	.05	2,15	.55	1.60	.0004	.0082	.0082	.0000	.32	.003	0	.07	.24	.30	15
April 17	0	0	.03	2.10	. 35	1.75	.0006	.0060	.0060	.0000	.26	.009	0	.11	.16	.20	114
May 14	0	0	.03	2.30	.80	1.50	0	.0066	.0066	.0000	.27	.002	0	.07	.32	.20	56
June 10	0	0	.03	2.05	. 35	1.70	0	.0070	.0070	.0000	.26	.003	0	.05	.32	.25	7998
July 22	0	0	.03	2.35	1.00	1.35	.0002	.0070	.0070	,0000	.27	.005	0	.07	.32	.30	57
Aug. 26	0	0	.01	1.85	.50	1.35	0	.0074	.0074	0	.27	.003	0	.07	.32	. 29	7969
Sept. 9	0	trace.	.00	2.40	.75	1.65	0	.0072	.0072	0	.27	.001	0	.08	.32	.26	183
Oct. 14	0	0	.04	2.35	.90	1.45	0	.0080	.0080	0	. 32	.003	0	.09	.32	.20	17
Nov. 18	0	0	.06	1.70	.55	1.15	.0002	.0074	.0074	0	.30	.002	0	.00	.24	.30	10
Dec. 16	v, sl	iron sl.	.16	2.15	.90	1.25	.0004	.0068	.0068	0	.30	.002	υ	.05	.40	.32	19
Yearly avg	0	0	.04	2.17	.68	1.49	.0002	.0074	.0074	.0000	.29	.003	0	.08	.30	. 20	18:2

# Chemical and Bacteriological Examination of the Water Supply of the town of East Greenwich, the sample being taken from tap in the office of the health officer.

	Арр	EARAN	CE.	ON	ESIDI EVA ATIO	Р0-		Аммо	ONIA.			Nitro	ogen.				
Date of					n.			Alb	umino	oid.				.pəı			ಲೆ
Collection.	Turbidity.	Sediment.	Color.	Total	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c
April 22	v. sl.	v, sl.	.48	4.85	1.70	2.65	0	.0132	.0114	.0018	.38	.008	0	.54	.63	.50	1123
May 22	0	v. sl.	.56	4.30	1.60	2.70	.0002	.0140	.0134	.0006	.37	.010	0	.61	.79	.69	276
June 24	0	v. sl.	.25	3.80	.90	2.90	.0004	.0078	.0076	.0002	.39	.008	0	.24	1.03	1.04	11408
July 22	v .sl.	sl.	.40	4.30	1.50	2.80	0	.0124	.0106	.0018	.42	.006	0	.41	1.11	.87	1860
Aug. 19	0	v. sl.	.12	4.85	1.30	3.55	0	.0082	.0080	.0002	.41	.011	0	.17	1.43	1.16	185
Sept. 9	0	v. sl.	.25	4.35	1.05	3.30	0	.0078	.0070	.0008	.41	.008	0	.24	1.35	1.06	43
Oct. 31	0	v. sl.	.34	4.90	1.35	3.55	.0006	.0108	.0092	.0016	.45	.013	0	.35	1.19	1.10	3038
Nov. 18	0	sl.	.20	3.80	,90	2.90	.0004	.0066	.0064	.0002	.37	.005	0	. 25	1.48	1.00	85
Dec. 16	v. sl.	dist.	.98	5.95	3.80	8.15	.0012	.0216	.0204	.0012	.44	.015	0	1.17	1.43	.45	1280
Yearly avg	v. sl.	sl.	.40	4.51	1.45	3.06	.0003	.0114	.0104	.0010	.40	.009	0	.44	1.18	.87	2144

Chemical and Bacteriological Examination of the Water Supply of Kent County, giving the Average for the Years 1900-1901, Grouped for Comparison of the Quality of the Water at Different Points of the Supply.

					(Pari	s in 1		' 							
		on	E91D EVA	PO-		Амм	ONIA.			Nitro	OGEN.				
DATE OF						Alt	oumlne	oid.				ed.			0,
Collection.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacterla per c.
Pawtuxet Valley-															
1900	.33	3.69	1.39	2.30	.0005	.0166	.0154	.0012	. 32	.011	.0000	.36	. 63	.79	384
1901	.29	8.67	1.44	2.28	.0012	.0159	.0151	.0008	.85	.016	.0000	.40	.80	.57	2841
Knight's Spring -															
1900	.00	5.56	2.11	3.45	.0001	.0013	.0013	.0000	.64	.237	.0000	.01	1.64	.28	1142
1901	.00	6.39	2.22	4.17	.0004	.0020	.0020	.0000	.81	.821	.0000	.01	2.03	.82	1622
Coventry Water Co															
1900	.05	2.04	.60	1.44	.0003	.0063	.0063	.0000	.28	.005	.0000	.08	.27	.30	2154
1901	.04	૨.17	.68	1.49	.0002	.0074	.0074	.0000	. 29	.003	.0000	.08	.80	.26	1382
East Greenwich-															
1900									• • • •						
1901	.40	4.51	1.45	3.06	.0003	.0114	.0104	.0010	.40	.009	.0000	.44	1.13	.87	2144

Chemical and Bacteriological Examination of the Water Supply of the City of Woonsocket, the sample being taken from the First Impounding Reservoir.

	Арі	PEARAN	CE.	on	ESID EVA ATIO	Р0-		Аммо	ONIA.			Nitre	OOEN.				
DATE OF COLLECTION.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c. c.
Jan. 14	dec.	sl.	.65	4.90	2.45	2.45	.0020	.0490	.0398	.0092	.28	.003	0	.86	.87	.60	181
Feb. 19	sl.		.67	4.35	2.70	1.65	.0066	.0514	.0328	.0186	.28	.007	0	.91	.87	.60	29
Mar. 18	v. sl.	٠.	.55	3.45	1.70	1.75	.0006	.0350	.0246	.0104	. 22	.003	0	.64	.48	.40	2542
April 15	sl.		.47	3.55	1.55	2.00	,0002	.0272	.0182	.0090	.14	.002	0	.70	.40	.45	287
May 13	i.		.56	3.80	1.45	2.35	.0002	.0840	.0214	.0126	.28	.002	0	.78	.56	.40	79
June 17		dist.	.58	4.10	3.50	1.60	.0002	.0528	.0284	.0244	. 19	.003	0	.84	.48	.50	146
July 22		sł.	. 65	4,95	3.10	1.85	.0006	.0462	.0316	.0146	.22	.004	0	.88	.63	.46	848
Aug. 19	dist.		.65	4.80	3.05	1.75	.0002	.0510	.0856	.0154	.21	.002	0	.82	.63	.46	483
Sept. 9	dist.	dist.	.61	4.05	2.35	1.70	.0002	.0562	.0400	.0162	. 22	.004	0	.86	.48	.45	226
Oct. 21	dec.	sl.	.65	4.50	2.65	1.85	.0002	.0552	.0362	.0190	. 23	.002	.0002	.86	.48	.40	1302
Nov. 18	dist.		.50	8.65	2.50	1.15	.0086	. 0428	.0362	.0066	.21	.005	0	.83	.48	.38	1663
Dec. 16	sl.	dlst.	.45	3.65	2.15	1.50	.0208	.0614	.0852	.0262	.22	.000	0	.80	.56	.60	2046
Yearly avg	ы.	sl.	.58	4.15	2.85	1.80	.0034	.0469	.0817	.0152	.28	.003	0	.82	.58	.48	819

# Chemical and Bacteriological Examination of the Water Supply of the City of Woonsocket, the sample being taken from the Pumping Station.

	Арі	PEARAN	CE.	ON	ESID EVA ATIO	Р0-		Амм	AIKO			Nitr	ogen.				
DATE OF COLLECTION.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total,	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c. c.
Jan. 14	sl.	v. sl.	. 55	4.70	1.90	2.80	.0010	.0226	.0224	.0002	.28	.008	0	.74	1.11	.65	983
Feb. 19	v. sl.	v. sl.	.58	3.75	2.00	1.75	.0076	.0252	.0204	.0048	.29	.007	0	.63	1.11	.76	104
Mar. 18	v. sl.	v. sl.	-47	3.40	1.60	1.80	.0020	.0208	.0198	.0010	.24	.003	0	.54	.79	.40	2852
April 15	v. sl.	v. sì.	.47	3.00	1.20	1.80	0	.0172	.0164	.0008	.14	.005	0	. 61	.48	.50	304
Мау 18	v. sl.	v. sl.	.57	3.30	1.45	1.85	.0010	.0200	.0174	.0026	.24	.002	0	.75	.71	.55	151
June 17	v. sl.	sì.	. 65	3.60	1.70	1.90	.0046	.0204	.0186	.0018	.21	.003	0	.68	.63	.50	729
July 22	v. sl.	v. sl.	.81	5.20	2.50	2.70	.0092	.0296	.0284	.0012	.23	.010	trace.	.86	1.03	.70	29
Aug. 19	sł.	sì.	.68	5.05	2.60	2.45	.0668	.0274	.0268	.0006	.21	.004	0	.71	1.11	.65	51
Sept. 9	sl.	v. sl.	.60	4.20	1.95	2.25	.0010	.0320	.0282	.0038	.23	.004	0	.72	.87	.69	146
Oot, 21	sl.	v. sl	.92	5.40	2.80	2.60	.0002	.0334	.0322	.0012	.23	.006	.0002	1.03	1.11	.55	340
Nov. 18	sl.	sl.	.51	4.25	2.00	2.25	.0028	.0260	. 0260	0	.30	.007	0	.80	1.11	.50	794
Dec. 16	sì.	v. sl.	.82	4.50	2.30	2.20	.0022	.0218	.0210	.0008	.22	.012	0	1.11	1.03	.35	4154
Yearly avg	v. sl.	v. sl.	.63	4.20	2,00	2.20	.0032	.0247	.0281	.0016	.24	.006	0	.68	.92	.56	882

Chemical and Bacteriological Examination of the Water Supply of the City of Woonsocket, the sample being taken from the tap in the office of the Superintendent of the Woonsocket Water Works.

							41 05 1										
	AP	PEARA	NCE.	ON	ESID EVA ATIO	Po-		Амм	ONIA.			Nitr	ogen.				
DATE OF					l i			All	oumin	oid.				ned.			ວ
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c.
Jan. 14	v. sl.	0	.27	4.90	1.45	3.45	.0006	.0150	.0150	0	.28	.009	0	.45	1.27	.80	296
Feb. 19	v. sl.	v. sl.	.53	4.35	1.75	2.60	.0074	.0258	.0200	.0058	.29	.007	0	.62	1.11	.70	109
Mar. 18	0	v. sl.	.47	3.40	1.55	1.85	.0024	.0210	.0182	.0028	.24	.003	0	.55	.79	.40	5208
April 15	v. sl.	v. sl.	.40	3.10	1.15	1.95	.0002	.0158	.0134	.0024	.16	.008	0	.53	.48	.50	250
Мау 18	sl.	dec.	iron .73	5.40	2.20	3.20	.0002	.0334	.0206	.0128	.24	.002	0	.89	.87	.60	844
June 17	sl.	dec.	.76	4.10	1.85	2.25	.0010	.0306	.0272	.0034	.21	.006	0	.91	.63	. 61	225
July 22	dist.	dist.	.85	5.20	2.55	2.65	.0014	.0382	.0262	.0120	.23	.010	0	1.01	1.03	.70	422
Aug. 19	dist.	dlst.	.76	5.65	3.35	2.30	.0032	.0328	.0252	.0076	.21	.003	0	.81	1.11	.65	1498
Sept. 9,	dlst.	sl.	.60	4.80	2.10	2.70	.0002	.0370	.0272	.0098	.23	.004	0	.72	.87	.68	190
Oct. 21	sl.	v. sl.	7.02	6.00	3.05	2.95	.0002	.0338	.0316	.0022	.28	.006	0	1.10	1.85	.55	504
Nov. 18	sl.	v. sl.	.51	4.35	2.85	2.00	.0024	.0274	.0254	.0020	. 30	.008	0	.77	1.11	.50	546
Dec. 16	sl.	trace	.82	4.70			.0014	.0216	.0206	.0010	.22	.002	0	1.11	1.11	.35	4030
Yearly avg	sl.	al.	.64	4.66	2.11	2.55	.0017	. 0277	.0226	.0051	.24	.006	0	.79	.98	.59	1177

<sup>\*</sup> Average of eleven months only to agree with averages on loss on ignition and flued.

Chemical and Bacteriological Examination of the Water Supply of the City of Woonsocket, Giving the Average for the Years 1900-1901, Grouped for Comparison of the Quality of the Water at Different Points of the Supply.

		ON	ESID EVA	PO-		Амм	ONIA.			NITR	OGEN.				
DATE OF			٠			Alb	umino	oid.				ed.			
Collection.	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c. c.
Woonsocket,															
Reservoir 3—															
1900	.81	4.85	2.87	1.98	.0010	.0507	.0350	.0157	. 24	.006	.0000	•96	.75	.65	603
1901	.58	4.15	2.35	1.80	.0034	.0469	.0317	.0152	.22	.003	.0600	.82	.58	.48	819
Woonsocket, Pumping Station—															
1900	.72	4.71	2.27	2.44	.0017	.0311	.0256	.0055	.25	.007	.0000	.81	.87	.70	668
1901	. 63	4.20	2.00	2.20	.0032	.0247	.0231	.0016	.24	.006	.0000	.68	.92	.56	882
Woonsocket,															
Supt's Office—															
1900	.70	4.92	2.31	2.61	.0014	.0292	.0282	.0060	.24	.010	.0000	.77	.89	.75	370
1801	. 64	4.66	2.11	2.55	.0017	.0277	.0226	.0051	.21	.008	.0000	.79	.98	.59	1177

# Chemical and Bacteriological Examination of the Water Supply of the City of Pawtucket, the sample being taken from the Intake at the Happy Hollow Pond.

	AP	PEARA	NCE.	on	ESID EVA TION	PO-		Амм	ONIA.			Nitro	OGEN.				
DATE OF								Alt	oumino	oid.				ed.			
Collection,	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c. c.
Jan 28	v. sl.	v. sl.	-24	4.75	1.30	3.45	.0004	.0118	.0116	.0002	.40	.010	0	.30	1.69	1.10	3658
Feb. 25	v. sl.	v. sl.	.20	4.45	1.10	3.35	.0001	.0142	.0140	.0002	.35	.013	0	.22	1.56	1.15	844
Mar. 25	v. sl.	v. sl.	.34	3.80	1.65	2.15	.0002	.0186	.0172	.0014	•30	.007	0	.47	1.11	.50	244
April 29	v. sl.	v. sl.	.35	3.60	1.70	1.90	.0002	.0158	.0146	.0012	.22	.005	0	.45	.95	.60	425
May 27	v. sl.	v. sl.	.43	4.25	1.65	2.60	.0014	.0174	.0174	.0000	.25	.006	0	.60	1.11	.85	770
June 24	v. sl.	v. sl.	.25	4.40	1.75	2.65	.0020	.0172	.0152	.0020	.33	.010	0	.32	1.35	1.22	91
July 29	v. sl.	v. sl.	.30	4.85	1.60	3.25	.0010	.0202	.0190	.0012	.35	.010	.0002	.81	1.50	1.35	3782
Aug. 26	v. sl.	sl.	.27	3.65	1.15	2.50	.0002	.0216	.0194	.0022	.32	.004	.0000	.31	1.43	1.17	75
Sept. 30	sl.	v. sl.	.32	4.10	1.20	2.90	.0028	.0170	.0152	.0018	.30	.007	0	.30	1.50	1.00	
Oct. 28	v. sl.	sl.	.25	4.00	1.15	2.85	.0030	.0176	.0174	.0002	.31	.006	0	.34	1.56	1.05	68
Nov. 25	v. sl.	sl.	.20	4,20	1.45	2.75	.0024	.0144	.0138	.0006	.33	.005	0	.24	1.43	.98	354
Dec. 23	v. sl.	sl.	.56	4.65	1.55	3.10	.0014	.0164	.0160	.0004	.37	.011	0	.71	1.56	.80	2170
Yearly avg	v. sl.	v. sl	.31	4.23	1.44	2.79	.0012	.0169	.0159	.0010	.32	.008	0	.38	1.40	.98	1135

Chemical and Bucteriological Examination of the Water Supply of the City of Pawtucket, the sample being taken from the tap in the Boiler-room of Pumping Station No. 3.

							Parts	in 100.	.000.)								
	APP	EARAN	CE.	ON	ESIDI Eva atio:	PO-		Амм	ONIA.			Nitro	GEN.				
DATE OF								Alb	umine	oid.				ed.			°.
Collection.	Turbidity.	sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension,	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c.
Jan. 28	v. sl.	0	.24	4.40	1.15	3.25	.0004	.0104	.0104	.0000	.40	.010	0	.27	1.69	1.10	1984
Feb. 25	0	trace	.20	4.45	1.10	3.35	.0006	.0094	.0090	.0004	.35	.013	0	. 22	1.56	1.15	532
Mar. 25	v. sl.	trace	.33	3.55	1.40	2.15	.0002	.0170	.0162	.0008	.30	.007	0	.46	1.11	.50	937
April 29	v. sl.	v. sl.	.35	3.80	1.40	2.40	.0002	.0132	.0126	.0006	.22	.005	0	. 41	.95	.60	299
May 27	v. sl.	trace	.43	4.05	1.60	2.45	.0012	.0162	.0162	.0000	.25	.006	0	.56	1.11	.85	73
June 24	v. sl.	trace	.25	4.10	1.25	2.85	.0020	.0136	.0134	.0002	.33	.011	0	.28	1.35	1.14	28,520
July 29	v. sl.	trace	.30	4.70	1.55	3.15	.0008	.0170	.0158	.0012	.35	.011	.0002	.30	1.50	1.25	1140
Aug. 26	v. sl.	v, sl.	.26	3.70	1.30	2.40	.0002	.0168	.0164	.0004	.32	.005	Ö	.25	1.27	1.05	1848
Sept. 30	v. sl.	0	.31	3.85	1.15	2.70	.0004	.0120	.0120	.0000	.30	.010	0	.28	1.50	1.00	lost
Oct. 28	v. sl.	v. sl.	.25	4.05	1.15	2.90	.0018	.0134	.0184	.0000	.31	.006	0	.33	1.56	1.00	84
Nov. 25	v. sl.	trace	.20	4.20	1.50	2.70	.0014	.0128	.0128	0	.33	.005	0	.24	1.43	.98	372
Dec. 23	v. sl.	v. sl.	.55	4.80	1.85	2.95	.0008	.0152	.0150	.0002	.37	.016	0	.70	1.50	.80	3224
Yearly avg	v. sl.	v. sl.	.31	4.14	1.37	2.77	.0008	.0189	.0136	.0003	.32	.009	0	.36	1.38	.95	3547

Chemical and Bacteriological Examination of the Water Supply of the City of Pawtucket, Giving the Average for the Years 1900-1901, Grouped for Comparison of the Quality of the Water at Different Points of the Supply.

		ON	EVA	PO-		Амм	ONIA.			Nitr	OGEN.				
Date of						Alb	umino	id.				ed.			
Collection.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c. c.
Pawtucket,															
Intake—															
1900	.31	4.19	1.35	2.81	.0016	.0163	.0141	.0022	.29	.009	.0000	. 35	1.33	1.02	915
1901	.31	4.28	1.44	2.79	.0012	.0169	.0159	.0010	.32	.008	.0000	.38	1.40	.98	1135
Pawtucket,															
Tap in Boiler Room—															
1900	.31	4.12	1.30	2.82	.0012	.0130	.0121	.0009	.29	.009	.0000	.33	1.34	1.02	815
1901	.31	4.14	1.37	2.77	.0008	.0139	.0136	.0003	.32	.009	.0000	.36	1.38	.95	3547

Chemical and Bacteriological Examination of the Water Supply of the Town of Bristol, the sample being taken from the Kickemuit River, at the Pumping Station of the Bristol and Warren Water Works.

	Арр	EARAN	CE.	ON	EVA	PO-		Амм	ONIA.			Nitro	OGEN.				
DATE OF					n.			Alb	ouming	oid.				ned.			ຳວ
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine,	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c.
Jan. 1	sl.	sl.	.85	10.55	3.40	7.15	.0020	.0278	.0250	.0028	2.20	.006	.0000	1.17	2.67	0.80	250
Feb. 5.,	sl.	sl.	.68	8.40	2.75	5.65	.0020	.0254	.0218	.0036	1.40	.009	.0000	0.96	2.47	0.80	13
Mar. 4	v. sl.	sl.	.54	8.60	2.85	5.75	.0002	.0250	.0236	.0014	1.35	.006	.0000	0.83	2.86	1.20	199
April 1	v. sl.	sl.	.94	5.70	2.70	3.00	.0002	.0316	. 0252	.0064	0.52	.007	.0000	1.20	1.27	0.50	230
May 6	sl.	dec.	.95	6.10	2.85	3.25	.0006	.0314	.0256	.0058	0.50	.006	.0000	1.18	1.43	0.75	4774
June 3	sl.	sl.	1.28	6.65	3.75	2.90	.0024	.0348	.0314	.0034	0.42	.005	.0000	1.51	1.35	0.55	6696
July 1	sl.	sl.	1.40	7.25	3.25	4.00	.0096	.0470	.0444	.0026	0.81	.015	.0000	1.47	1.56	lost	lost
Aug. 5	sl.	sl.	.76	7.50	1.60	5.90	.0022	.0462	.0388	.0074	1.27	.005	.0000	1.12	1.82	0.93	2675
Sept. 2	sl.	dist.	.57	9.50	3.45	6.05	.0024	.0410	.0380	.0030	2.35	.003	.0000	0.96	1.95	0.97	220
Oct. 9	dist.	sl.	.51	16.55	4.20	12.35	.0020	.0416	.0382	.0034	6.00	.002	.0000	0.81	3.38	0.98	526
Nov. 4	sl.	dist.	. 65	12.00	3.65	8.35	.0064	.0398	.0390	.0008	3.15	.005	.0000	1.10	2.73	0.85	2014
Dec. 2	sl.	sl,	.61	12.85	3.30	9.55	.0044	.0374	.0362	.0012	4.47	.010	.0000	1 02	3.12	0.93	6510
Yearly avg	sl.	sl.	.81	9.31	3.15	6.16	. 0029	. 0358	.0323	. 0035	2.04	.007	•0000	1.11	2.22	.84	1001

Chemical and Bacteriological Examination of the Water Supply of the Town of Bristol, the sample being taken from the tap in the Office of the Town Clerk of Bristol.

(Parts in 100,000.)

						(1	at to 11	1 100,0									
	App	EARAN	CE.	ON	ESID EVA ATIO	.РО-		Амм	ONIA.			NITE	ROGEN.				
DATE OF								All	oumine	oid.				ed.			ల
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c.
Jan. 1	v. sl.	v. sl.	.73	9.30	3.25	6.05	.0008	.0238	.0236	.0002	1.65	.006	.0000	1.04	2.53	0.85	123
Feb. 5	v. sl.	sl.	.66	8.10	2.75	5.35	.0018	.0244	.0216	.0025	1.20	.009	.0000	0.91	2.34	0.80	20
Mar. 4	v. sl.	v. sl.	.54	8.90	2.65	6.25	.0002	.0234	.0224	.0010	1.50	.007	.0000	0.83	2.99	1.30	399
April 1	v. sl.	v. sl.	.94	5.35	2.75	2.60	.0002	.0254	.0238	.0016	0.47	.008	.0000	1.17	1.43	0.50	189
May 8	sl.	dec.	1.01	6.40	2.80	8.60	.0016	.0286	.0256	.0030	0.50	.006	.0000	1.14	1.50	0.70	264
June 3	sl.	sl.	1.26	6.00	3.25	2.75	.0002	.0328	.0300	.0028	0.46	.005	.0000	1.50	1.19	0.67	1063
July 1	sl.	dist.	1.30	7.65	2.85	4.80	.0010	.0444	.0388	.0056	0.83	.025	. 9000	1.42	1.76	lost	382
Aug. 5	sl.	dist.	.75	8.30	1.90	6.40	.0006	.0470	.0342	.0128	1.27	. 005	.0000	1.12	1.95	1.20	16112
Sept. 2	sl.	dist.	.55	8.60	3.20	5.40	.0004	.0388	.0382	.0006	1.75	.005	.0000	0.91	2.02	1.23	1057
Oct. 9	sl.	sl.	.45	19.05	4.05	15.00	.0008	.0380	.0258	.0122	7.64	.002	.0000	0.78	4.29	1.15	llq.
Nov. 4	sl.	dist.	.66	11.15	3.25	7.90	.0018	.0394	.0384	.0010	2.85	.005	.0000	1.01	2.73	0.85	27404
Dec. 2	dist.	sl.	.62	13.95	3.80	10.15	.0046	.0434	.0424	.0010	4.20	.012	.0000	0.92	3.19	0.95	2790
Yearly avg	sl.	sl.	.79	9.40	8.04	6.36	.0012	. 0341	.0301	.0037	2.03	.006	.0000	1.06	2.33	0.93	8074

Chemical and Bacteriological Examination of the Water Supply of the Town of Bristol, Giving the Average for the Years 1900–1901, Grouped for Comparison of the Quality of the Water at Different Points of the Supply.

		1	SIDU:	RA-		Амм	ONIA.			Nitr	OGEN.				
DATE OF						All	oumine	oid.				ed.			
Collection.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine,	As Nitrates.	As Nitrites	Oxygen Consumed.	Hardness.	Alkallulty.	Bacteria per c. c.
Bristol, Pumplng Station—															
1900	.97	11.28	4.02	7.26	.0035	.0439	.0356	.0083	3.00	.007	.0000	1.16	2.31	1.03	1764
1901	.81	9.31	3.15	6.16	.0029	.0358	.0323	.0035	2.04	.007	.0000	1.11	2.22	.84	1001
Bristol,															
Town Clerk's Office—							ĺ								
1900	.94	24,77	5.10	19.67	.0016	.0376	.0325	.0051	9.54	.011	.0000	1.07	3.76	1.14	18014
1901	.79	9.40	3.04	6.36	.0012	.0341	.0304	.0037	2.03	.006	.0000	1.06	2.33	.93	3074

Chemical and Bacteriological Examination of the Water Supply of the District of Narragansett, the sample being taken from Rocky Brook, at the Pumping Station.

	APP	EARAN	ICE.	ON	ESID EVA	Р0-		Аммо	ONIA,			Nitr	ogen.			!	
DATE OF					,			Alt	oumine	oid.				ned.			9
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition,	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine,	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c.
Jan. 24	v. sl.	sl.	.72	5.35	2.35	3.00	.0014	.0250	.0228	.0022	.68	.007	0	.87	1.27	.50	572
Feb. 28			.49	4.65	1.65	3.00	.00:00	.0308	.0246	.0062	.60	.006	0	.52	.71	.45	705
Mar. 27			.72	5.30	2.10	3.20	.0010	.0222	.0192	.0030	.56	.004	0	.91	.79	.50	1767
April 25	4.6		.95	4.75	2.55	2.20	.0004	.0214	.0192	.0022	.48	.004	0	.99	.79	.40	* 20194
Мау 27	sl.		1.12	4.90	2.80	ર.10	.0008	.0270	.0244	.0026	.49	.008	0	1.24	.71	.40	744
June 24	11	£ E	.93	5.15	₹.35	2.80	.800.	.0260	.0222	.0038	.56	.003	0	.96	.79	.58	975
July 22	dist.	6.6	.90	5.35	3.00	3.35	.0102	.0296	.0244	.0052	.55	.004	0	.89	.50	.65	12976
Aug. 26	sl.	dist.	.70	5.25	1.80	3.45	.0030	-0340	.0268	.0072	.50	,002	0	.84	.95	.70	1606
Sept. 30	v. sl.	sl.	.77	5.20	1.90	3.30	.0003	.0250	.0228	,0022	.59	.005	0	.87	1.11	.54	330
Oct. 31		dist.	.90	6.70	2.50	4.20	.0018	.0206	.0184	.0022	.58	.006	0	.92	1.11	.55	218
Nov. 26	sl.	sl.	.92	6.00	2.35	3.65	.0008	.0236	.0200	.0036	.71	.005	0	1.01	.95	.40	liq.
Dec. 31			1.10	5.80	2.60	3.20	.0022	.0234	.0228	.0006	. 58	.013	0	1.31	.95	.38	307
Yearly avg	sl.	sl.	.85	5.37	2.25	3.12	.0022	.0257	.0223	.0034	.57	.006	0	.94	.89	.50	2760

<sup>\*</sup> Stood 4 days. † Stood 24 hours.

Chemical and Bacteriological Examination of the Water Supply of the District of Narragansett, the sample being taken from the tap in the Office of the Water Company.

	АРР	EARAN	CE.	ON	ESID EVA ATIO	PO-		Амм	ONIA.			NITE	OGEN.				
DATE OF								All	oumine	oid.				ed.			
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c. c.
Jan. 24	v, sl.	v. sl.	.72	5.70	1.90	3.80	.0010	.0170	.0158	.0012	.70	.007	0	0.81	1.43	.70	1354
Feb. 28		4.6	.55	5.50	1.85	3.65	.0010	.0188	.0160	.0028	.67	.007	0	0.52	1.11	.60	368
Mar. 27	"		.66	4.75	1.85	2.90	.0002	.0174	.0168	.0006	. 64	.008	0	0.74	.79	.60	595
April 25		**	.92	4.45	2.65	1.80	.0002	.0172	.0168	.0004	.46	-006	0	0.90	.71	.40	* 203670
May 27			1.14	4.95	2.30	2.65	.0002	.0220	.0208	.0012	.45	.008	0	1.19	1.19	.76	lost
June 24	sl,	;,	.93	5.80	2.65	3.15	.0002	.0206	.0186	.0020	.55	.010	0	.80	1.43	.90	7
July 23	dist.	sl.	1.12	5.65	2.45	3.20	.0002	.0260	.0320	.0040	.58	.005	0	.91	.79	.70	4
Aug. 26			.81	5.70	1.80	3.90	.0002	.0250	.0198	.0052	.59	.006	0	.73	1.82	1.42	9951
Sept. 30	v. sl.	v. sl.	.75	5.00	1.85	3.15	.0000	.0200	.0190	.0010	.59	.005	0	.72	1.11	.71	153
Oct. 31			.89	5.55	2.10	3.45	.0008	.0208	.0192	.0016	.57	.008	0	.85	1.11	.75	1137
Nov. 26	sl.	sl.	.92	6,00	2.45	3.55	.0006	.0196	.0190	.0006	.71	.005	0	1.00	1.03	.50	289
Dec. 31	"	**	1.10	5.65	2.60	3.05	.0012	.0216	.0212	.0004	.58	.011	0	1.22	1.27	.43	1196
Yearly avg	sl.	v sl.	.88	5.39	2.20	3.19	.0005	.0205	.0188	.0017	.59	.007	0	.87	1.15	.71	19884

<sup>\*</sup> Stood 4 days.

Chemical and Bacteriological Examination of a Water Supply in the District of Narragansett, taken from a supply known as the Gladstone Spring, the same being located at Narragansett Pier.

	Арр	EARAN	CE.	ON	ESID EVA ATIO	Р0-		Амм	ONIA.			Nitr	ogen.				
DATE OF					٦.			All	bumine	oid.				led.			ಲೆ
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c.
June 28	0	0	.00	6.90	1.20	5.70	0	.0020	.0020	0	1.07	.080	0	0.00	2.08		126400
July 22	0	0	.00	7.25	1.85	5.40	0	.0012	.0012	0	1.02	.088	0	0.00	1.82	1.20	*
Aug. 26	0	0	.00	6.50	1.10	5.40	0	.0008	.0008	0	1.00	.088	0	0.00	1.95	1.25	8411
Sept. 30	0	0	.00	6.80	1.30	5.50	0	.0008	.0008	0	1.00	.088	0	0.01	1.95		61656
Yearly avg	0	0	.00	6.86	1.36	5.50	0	.0012	.0012	0	1.02	.086	0	0.00	1.95	1.23	67406

<sup>\*</sup> Too numerous.

Chemical and Bacteriological Examination of the Water Supply of the District of Narragansett, giving the Average for the Years 1900-1901, Grouped for Comparison of the Quality of the Water at Different Points of the Supply.

					(1 41 61	:									
		ON	ESID EVA ATIO	PO-		Амм	ONIA.			Nitro	GEN.				
DATE OF COLLECTION.	Color.	Total.	Loss on Ignition.	Fixed.	Pree,	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness,	Alkallnity.	Bacteria per 6. c.
Narragansett Pier. Pumping Station-											İ				
1900	.82	4.54	1.80	2.74	.0022	.0256	.0205	.0051	.60	.006	.0000	.88	.81	.71	1536
1901	.85	5.37	2.25	3.12	.0022	. 0257	.0223	.0034	.57	.006	.0000	.94	.89	.50	2760
Narragansett Pier, Office Water Co.															
1(ин)	.87	5.02	1.98	3.09	.0007	.0196	.0166	.0030	.60	.007	.0000	.78	.84	.72	1652
1901	.88	5.39	2.20	3.19	.0005	. 0205	.0188	.0017	.59	.007	0000	.87	1.15	-71	19884

Chemical and Bacteriological Examination of the Water Supply of the City of Newport, the sample being taken from the South Reservoir, at the Intake.

Ξ	Lung	ARAN			SIDU Evat		AMERICA TO	Амме				Nitre	WERN				
	APPE	AKAM	E.		TION			дине	NIA.			NIIK	JGEN.				
DATE OF					e e			Alb	umino	id.				ned.			ပံ
('ollection.	Tarbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c.
Jan. 8	v. sl.	sl.	.24	9.95	3.75	6.20	.0470	. 0542	.0494	.0048	2.20	.006	.0002	.60	2.93	2.00	578
Feb. 8	sl.	66	.30	10.10	3.80	6.30	.0676	.0798	.0608	.0190	2.09	.021	.0002	.78	2.86	2.20	390
Feb. 12			.30	10.40	3.55	6.85	.0676	.0624	.0528	.0096	2.10	.021	trace	.65	2.86	2.20	1888
Monthly avg.			.30	10.25	3.68	6.57	.0676	.0711	.0568	.0143	2.10	.021	.0001	.69	2.86	2.20	862
Mar. 11	dec.	dec.	.25	9.55	3.50	6.05	. 0412	.0492	. 0324	.0168	1.50	.042	.0006	.64	2.73	1.60	2399
April 8		46	.51	8.65	3.15	5.50	. 0324	.0508	.0372	.0136	1.23	.050	.0012	.75	2.21	1.10	8413
Мау б		6.6	. 34	8.55	2.50	6.05	.0070	.0468	.0288	.0180	1.20	.060	.0010	.61	2.28	1.20	1492
June 10	64		.40	8.20	3.10	5.10	.0032	.0644	.0358	.0286	1.23	.020	.6014	.78	2.47	1.65	693
July 8	v. sl.	sl.	.25	7.75	2.50	5.25	.0054	.0414	. 0332	.0082	1.19	.004	.0000	.58	2.53	1.85	2418
Aug. 12	sl.		. 32	8.30	3.80	5.00	.0002	.0514	.0370	.0144	1.30	.006	0	.61	2.80	2.20	3581
Sept. 3	6.0		.32	8.80	3.45	5.35	.0020	.0516	.0382	.0184	1.59	,004	0	.58	2.80	2.27	459
Oct. 16	v. sl.		.25	9.30	3.25	6.05	.0020	.0506	.0370	.0136	1.68	.002	0	.71	2.67	2.12	868
Nov. 11	sl.		. 20	9.20	3.40	5.80	.0034	.0488	.9398	.0090	1.65	.003	0	.57	2.78	2.00	589
Dec. 9		dist.	. 22	9.65	4.40	5,25	.0196	.0506	. 0488	.0068	1.50	.012	0	.70	2.99	2.03	496
Yearly avg'	t.	sl.	.30	9.11	3.36	5.75	.0230	.0540	.0405	.0135	1.57	.019	.0004	.65	2.65	1.88	1820

Chemical and Bacteriological Examination of the Water Supply of the City of Newport, the sample being taken from the tap in the Cottage of the Engineer of the Newport Water Works.

(Parts in 100,000,)

ts in	100,000.)	J
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	АРР	EARAN	CE,	ON	EVA	Р0-		Аммо	NIA.			Nitr	OGEN.				
DATE OF								Alb	umino	oid,				ed.			ວໍ
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	ln Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c. c
Jan. 8	v. sl.	v. sl.	.20	9.80	8.55	6.25	.0462	.0476	.0450	.0026	2.20	.017	0	.54	2.99	2.00	4712
Feb. 8	sì.	٠.	. 25	9.70	2.85	6.85	.0604	.0472	.0424	.0048	2.17	.026	0	. 62	2.93	2.00	605
Feb. 12	v. s).		.15	11.25	3.00	8.25	.0480	.0288	.0276	.0012	2.43	.035	0	.38	3.38	1.70	1003
Monthly avg.	sl.		.20	10.48	2.93	7.55	.0542	.0380	.0350	.0030	2.30	.031	0	.50	3.16	1.85	803
Mar. 11	sl.	sl.	. 22	8.75	3.05	5.70	.0344	.0380	.0324	.0056	1.70	.052	.0002	. 45	3.06	1.70	2468
April 8	"		. 39	8,95	3,25	5.70	.0244	.0332	,0800	.0032	1.55	-066	.0006	.51	2.60	1.00	2208
Mny 6	dec.		.26	8.30	2.05	6.25	.0052	.0316	.0250	.0066	1.50	.070	.0006	.47	2.67	1.50	1785
June 10	dist.	dist.	.36	8.10	2.20	5.90	.0036	.0410	.0362	.0048	1.43	.025	0	.50	2.78	1.75	584
July 8	v. sl.	v. sl.	.21	8.10	2.05	6.05	.0042	.0296	.0272	.0024	1.40	.012	0	.41	2.78	1.90	,54250
Aug. 12	61	sl.	.30	9,55	3.05	6.50	.0020	.0354	.0324	.0030	1.53	.008	0	.50	3.06	2.15	9424
Sept. 3	sl.		.32	9.75	3,45	6.30	.0186	.0414	.0330	.0084	1.70	,006	trace	.47	3.32	2.95	236
Oct. 16	v. sl.	v. sl.	.20	8.70	2.55	6.15	.0030	.0346	.0336	.0010	1.78	.005	0	.50	2.99	2.85	565
Nov. 11	sl.	sl.	.20	9.65	3.05	6.60	.0032	.0414	.0358	,0056	1.78	.008	0	.56	2.80	2.00	458
Dec. 9	66	dist.	.21	10.05	3.80	6.25	.0174	.0488	.0892	.0096	1.60	.020	0	.67	3.19	2.20	2170
Yearly avg	sl.	sl.	.25	9.28	2.92	6.36	.0208	.0383	.0338	.0045	1.75	.027	.0001	.51	2 96	1.94	6168

Chemical and Bacteriological Examination of the Water Supply of the City of Newport, the sample being taken from the tap in the Office of the Board of Health of the City of Newport.

	Арр	EARAN	CE.	on	SIDU EVAI	90-		Амм	ONIA,			Nitre	ogen.				
DATE OF					j.			Alt	oumino	oid.				ned.			С.
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c.
Jan. 8	v. sl.	v. sl.	.20	10.20	3.10	7.10	.0418	.0500	.0444	.0056	2.20	.017	0	.52	2.98	2.00	914
Feb. 13	sl.	sl.	.25	10.85	3.25	7.60	.0648	.0484	.0452	.0032	2.20	. 035	trace	,55	2.99	2.10	1099
Mar. 11	**		.22	9.20	3.65	5.55	.0316	.0428	. 0344	.0084	1.70	.052	.0006	.53	3.06	1,90	1543
Aprl! 8	6.6		.26	8.50	2.65	5.85	.0148	.0856	.0336	.0020	1.65	.063	.0012	.45	2.60	1.20	1765
May 6	dist.	sl.	. 25	9.00	1.90	7.10	.0046	.0306	.0210	.0066	1.68	.084	.0006	.47	2.67	1.50	6448
June 10		dist.	.34	11.30	2.70	8.60	.0002	.0402	.0332	.0070	1.59	. 030	0	. 46	2.99	2.20	173
July 8	v. sl.	v. sl.	.20	9.00	2.60	6.40	.0004	.0278	.0260	.0018	1.53	.012	0	.39	3.12	2.65	4960
Aug. 12		4.6	.22	8.65	2.45	6.20	.0004	.0330	.0298	.0032	1.50	.004	0	. 45	3.12	2.30	3976
Sept. 3,		44	.25	9.85	3.05	6.30	.0002	.0330	.0316	.0014	1.87	.010	0	. 48	3.82	2.55	1116
Oct. 8	6.6	+6	.20	9.40	3,20	6.20	,0020	.0400	.0368	.0032	1.70	.010	0	.56	8.25	2.65	4030
Nov. 11	4.6	4.6	.20	10,15	3.35	6.80	.0032	.0420	.0346	.0074	1.95	. 010	0	. 56	2.86	2.25	1887
Dec. 9	sl.	dist.	. 21	9.10	2.90	6.20	.0098	.0422	.0368	.0054	1.50	.020	0	. 64	8,12	2.00	1777
Yearly avg	sl.	sl.	.23	9.56	2.90	6,60	.0145	.0888	. 0342	,0046	1.76	.029	.0002	.51	3.00	2,11	2845

Chemical and Bacteriological Examination of the Water Supply of the City of Newport, giving the Average for the Years 1900-1901, Grouped for Comparison of the Quality of the Water at Different Points of the Supply.

					(Farts	in 10	0,000.)								
		on	ESIDI EVA ATIO	PO-		Амм	ONIA.			Nitr	ogen.			!	
Date of						A1).	umino	id.				ed.			ย์
COLLECTION.	Color.	Total.	Loss on Ignition.	Fixed.	Pree,	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c.
Newport, Eastons Pond—															
1900	.39	9.51	3.17	6.34	.0056	. 0560	.0372	.0188	1.80	.009	.0001	. 66	2.58	2.12	1235
1901	.80	9.11	3.36	5.75	.0230	.0540	.0405	.0135	1.57	.019	.0004	. 65	2.65	1.88	1820
Newport, Eng. Cottage -															
1900	.25	9.69	2.90	6.79	.0059	.0387	.0329	.0058	2.20	.012	.0001	.49	2.94	2.12	1755
1901	.25	9.28	2.92	6.36	.0208	.0383	.0338	.0045	1.75	.027	.0001	.51	2.96	1.94	6162
Newport, Office Bd. of 11'th—				,											
1900	. 23	10.55	3.43	7.12	.0055	.0489	.0413	.0076	2.02	.015	.0000	.58	2.94	2.06	563
1901	. 23	9.56	2.90	6.60	.0145	.0388	.0342	.0046	1.76	.029.	.0002	.51	3.00	2.11	2345

Chemical and Bacteriological Examination of the Water Supply of the Town of Jamestown, the sample being taken from the North Pumping Station.

	Арр	EARAN	CE.	ON	ESID EVA ATIO	.РО-		Амм	ONIA,			Nitre	OGEN.				
DATE OF								Alt	oumino	oid.			PAGE Titombulan da	ed.			ಲೆ
('ollection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c.
Jan. 8	0	v. sl.	.48	8.55	2.35	6.20	.0008	.0228	.0222	.0006	1.43	. 054	0	.79	2.47	.60	<b>87</b> 5
Feb. 19	v. sl.	sl.	.55	8.35	3.10	5.25	.0018	.0302	.0270	.0032	1.50	.014	0	.89	2.34	. 60	156
Mar. 10	0	v. si.	.35	7.05	2.40	4.65	.0006	.0138	.0126	.0012	1.18	. 032	0	.39	2.84	1.10	309
April 8	sì.	sl.	. 64	6.60	3.00	3.60	.0008	.0254	.0246	.0008	0.80	.016	0	.94	1.27	.50	2264
May 6	v. sl.	v. sl.	. 55	7.90	3.10	4.80	.0006	.0282	.0222	.0010	2.65	. 022	0	.80	2.21	1.60	1273
June 9	v. sl.	v. sl.	1.02	6.95	3.45	3.50	.0006	0414	. 0386	.0028	0.73	.009	0	1.37	1.43	.85	62958
July 14	sl.	šl.	1.10	8.30	3.50	4.80	.0094	.0472	. 0434	.0038	0.98	.006	0	1.19	1.63	1.25	3100
Aug. 12	v. sl.	sl.	1.32	8.45	4.00	4.45	.0048	.0680	.0616	.0064	1.03	.006	0	1.55	1.69	.99	5332
Sept. 9	sl.	v. sl.	1.40	9.60	4.05	5.55	.0054	.0858	.0770	.0088	1.20	.010	.0002	1.72	1.69	1,00	5828
Oct. 15	v. sl.	v. sl.	1.12	8.50	4.05	4.45	.0062	.0632	.0592	.0040	1.20	.010	0	1.54	1.56	.65	111600
Nov. 11	0	v. sl.	1.02	8.95	4.05	4.90	.0076	.0650	.0622	.0038	1.39	.010	0	1.45	1.63	.60	22
Dec. 9	v, sl.	v. sl.	.79	9.85	4.30	5.55	.0032	.0428	.0398	. 0030	1.70	.019	0	1.26	2.73	.86	3100
Yearly avg.,	v. sl.	v. sl.	.86	8.25	3.44	4.81	,0035	.0441	.0409	,0032	1.32	. 020	0	1.92	1.92	. 88	16401

Chemical and Bucteriological Examination of the Water Supply of the Town of Jamestown, the sample being taken from the South Pumping Station.

#### (Parts in 100.000,)

	Apr	EARAN	е. Се.	on	EVAL	PO-		Амм	ONIA.			Nitro	DGEN.			,	
'DATE OF								Alb	umlno	id.				ned.			
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hurdness.	Alkallnity.	Bacteria per c.c.
Jan. 8	0	0	.02	11.70	3.40	8.30	0	.0030	.0030	.0000	2.35	. 350	0 1	.02	3.77	1.20	509
Feb. 19	v. sl.	v. sl.	.46	8.85	2.80	5.55	.0014	. 0204	.0190	.0014	1.50	.038	0	.67	3.06	1.00	46
Mar. 10	0	v. sl.	.20	9.95	3.10	6.85	0	.0092	.0092	.0000	1.95	.140	0	.27	3,51	1.45	661
April 8	0	0	.03	11.85	4.55	7.30	.0002	.0028	.0028	.0000	2.45	. 360	0	.06	3.85	1.10	1806
May 6	0	0	.00	14.70	5.50	9.20	0	.0098	.0098	.0000	1.00	.600	0	. 06	4.16	1.10	li.q
June 9	sl.	v. sl.	.10	12.95	3.80	9.15	.0038	.0122	.0088	.0034	2.25	.220	.0004	.21	3.90	1.35	63860
July 14	0	sl.	.13	14.70	5.20	9.50	.0008	.0088	.0088	.0000	2.43	.300	0	.20	4.78	1.83	
Aug. 12	0	0	.00	14.00	5.00	9.00	.0000	.0022	.0022	0	2.68	.449	.0002	.02	4.29	1.41	3534
Sept. 9	0	0	.00	13.55	5.00	8.55	0	.0020	.0020	0	2.60	.440	.0002	.01	4.86	1.40	152
Oct. 15	0	0	.04	12.85	2.90	9.95	.0002	.0034	,0034	0	2.93	.340	0	.11	1.16	1.35	77438
Nov. 11	0	0	. 01	11.95	3.85	8.10	.0004	.0046	.0046	0	2.51	. 100	.ONE	.08	3.61	1.35	61
Dec. 9	0	trace	.00	12.35	3.90	8.45	.0008	.0022	.0022	0	2.78	.387	,0000	.02	3.90	1.33	631
Yearly avg	v. sl.	v. sl.	.08	12.41	4.08	8.83	.0006	.0067	.0063	,0001	2.20	.835	1000.	.14	3.99	1.32	7142

Chemical and Bacteriological Examination of the Water Supply of the town of Jamestown, the sample being taken from tap in the store of J. Watson, located on the distal end of the supply pipes.

	APP	EARAN	CE,	on	EVA:	PO-		Амм	ONIA.			NITE	OGEN.				
DATE OF					ä			All	oumine	oid.				ed.			5.
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c. c.
Jan. 8	0	0	.03	12.10	3.75	8.35	.0006	.0046			2.35	.350	0	.04	4.43	2.20	331
Feb. 19	v. sl.	trace	.42	8.85	2.75	6.10	.0006	.0186	.0158	.0028	1.28	.036	0	.54	3.51	2.30	806
Mar. 10	0	0	.10	13.25	4.75	8.50	0	.0058			2.28	.250	0	.10	5.43	3.25	14822
April 8	0	0	.30	8.55	2.75	5.80	.0002	.0132	.0130	.0002	1.55	.150	U	.40	2.86	1.40	278
May 6	v. sl.	v. sl.	.51	6.15	2.20	3.95	.0028	.0232	.0212	.0020	1.00	.020	0	.75	1.50	.70	10998
June 9	v. sl.	v. sl.	1.00	6.85	3.25	3.60	.0006	.0388	.0374	.0014	.75	.006	0	1.36	2.02	1.15	42594
July 14	sl.	sl.	1.12	7.85	3.20	4.65	.0022	.0462	. 0440	.0022	1.03	.018	U	1.19	1.95	1.55	32860
Aug. 12	v. sl.	iron dist.	.09	14.50	5.15	9.35	0	.0112	.0054	.0058	2.55	.149	.0002	- 19	4.86	  2.09	1191
Sept. 9	v. sl.	v. sl.	.09	14.85	5.40	9.45	.0014	.0096	.0072	.0024	2.50	.400	.0004	.18	4.86	2.20	386
Oct. 15	v. sl.	v. sl.	1.00	9.20	3.85	5.35	.0014	. 0534	.0528	.0006	1.45	.017	0	1.29	2.08	1.20	2752
Nov. 11	v. sl.	v. sl.	.26	11.45	3.20	8.25	.0034	.0174	-0166	.0008	2.18	.280	0	.37	3.19	1.35	lost.
Dec. 9	v. sl.	v. sl.	.53	10.65	2.95	7.70	.0031	.0288	.0278	.0010	2.05	.154	0	.80	3.19	1.48	14864
Yearly avg	v. sl.	v. sl.	.38	10.35	3.60	6.75	.0014	, 0260	.0241	.0019	1.75	.177	.0001	.60	3.32	1.74	11016

<sup>\*</sup> Average for 10 months only to agree with averages on albuminoid in solution and in suspension,

Chemical and Bacteriological Examination of the Water Supply of the Town of Jamestown, Giving the Average for the Years 1900-1901, Grouped for Comparison of the Quality of the Water at Different Points of the Supply.

					(Pa	irts in	100.00	0.)							
		ON	EVA:	Р0-		Амм	IONIA.			NITR	OGEN.				
DATE OF			ند			All	oumina	oid.				ed.			°,
Collection,	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension,	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness,	Alkalinity.	Bacteria per c.
-			_										_		
Jamestown, No. Pump'g Sta'n—															
1900	.63	9.62	3.08	6.54	.0035	.0336	.0269	.0067	1.27	.071	.0001	.77	2.26	1.04	4794
1901	.86	8.25	3.44	4.81	.0035	.0441	.0409	.0082	1.32	.020	.0600	1.92	1.92	.88	16401
Jamestown,															
So. Pump'g Sta'n-															
1900	.03	10.23	2.95	7.28	.0001	.0030	.0029	.0001	2.02	.243	.0000	.05	3.49	1.49	842
1901	.08	12.41	4.08	8.33	.0006	.0067	.0063	.0004	2.29	.335	.0001	.14	3.99	1.32	7140
Jamestown,															
Watson Store-															
1900	. 45	10.34	2.88	7.46	.0010	.0202	.0194	.0008	1.60	.105	.0000	.52	3.39	2.12	723
1801	.38	10.35	3.60	6.75	.0014	.0260	.0241	.0019	1.75	.177	.0001	. 60	3.32	1.74	11016
												1			

Chemical and Bacteriological Examination of the Water Supply of the Town of Westerly, the sample being taken from the Pumping Station of the Westerly Water Works.

	App	EARAN	CE,	on	ESIDI EVA ATIO	P0-		Аммо	ONIA.			Nitr	ogen.				
DATE OF								Alb	umino	oid.				red.			ં
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites,	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c.
Jan. 1	0	0	0	4.70	.95	3.75	0	.0018	.0018	.0000	.58	.062	0	.02	1.82	1.50	2
Feb. 7	0	0	0	5.70	1.40	4.30	.0006	.0020	.0020	.0000	.58	.070	0	.07	1.95	1.50	1
Mar. 4	0	0	0	5.15	1.00	4.15	0	.0014	.0014	.0000	.60	.056	0	.00	1.95	1.50	4
April 8	0	0	0	5.35	1.35	4.00	0	.0014	.0014	.0000	.55	.056	0	.00	1.82	1.45	75
May 6	0	0	0	5.35	1.15	4.20	0	.0014	.0014	.0000	.56	.068	0	.01	1.95	1.50	14198
June 10	0	0	0	5.80	1.70	4.10	.0002	.0012	.0012	.0000	.54	.064	0	.00	2.08	1.50	675
July 8	0	0	0	5.90	1.70	4.20	0	.0020	.0020	.0000	.57	.064	0	.02	1.95	1.50	89
Aug. 5	0	0	0	5.25	.60	4.65	.0002	.0018	.0018	.0000	.58	.052	0	.00	1.95	1.65	46
Sept. 3	0	0	0	5.75	1.45	4.30	0	.0012	.0012	0	.58	.060	0	.01	2.34	1.65	41
Oct. 7	0	0	0	5.60	1.70	3.90	.0002	.0018	.0018	0	.58	.050	0	.02	2.21	1.70	114
Nov. 1	0	0	0	5.50	1.30	4.20	0	.0012	.0012	0	.58	.054	0	.00	z.02	1.50	4
Dec. 4	0	0	0	4.90	.95	3.95	0	.0016	.0016	0	.60	.050	U	.00	1.95	1.55	3
Yearly avg	0	0	0	5.41	1.27	1.14	.0001	.0016	.0016	.0000	.58	.059	0	.01	2.00	1.54	1269

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Chemical and Bacteriological Examination of the Water Supply of the Town of Westerly, the sample being taken from the Tap at the Drinking Fountain at the Railroad Station.

	Арі	Appearance. Residue on Evapo-						Аммо	ONIA.			Nitro	OGEN.				
DATE OF					1			Alb	umino	id.				ed.			<i>i</i>
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c. c
Jan. 1	0	0	0	5.00	.90	4.10	0	.0022	.0022	.0000	.55	.062	0	.01	1.82	1.50	2
Feb. 7	0	tr.*	0	5.65	1.40	4.25	.0010	.0020	.0020	.0000	.58	.070	0	.13	1.95	1.59	0
Mar. 4	0	0	0	5.15	1.10	1.05	0	.0012	.0012	.0000	-60	.056	0	.00	1.95	1.50	0
April 8	0	0	0	5.35	1.40	3.95	0	.0014	.0014	.0000	.55	.056	0	.00	1.82	1,45	32
May 6	0	0	0	5.25	1.15	4.10	0	.0014	.0014	.0000	.56	.068	0	.00	1.95	1.50	1802
June 10	0	0	0	5.50	1.30	4.20	:0002	.00:20	.0020	0	.56	.064	0	.00	2.08	1.50	1054
July 8,	0	0	0	5.80	1.30	4.50	0	.0022	.0022	0	.57	.064	0	.02	1.95	1.55	1550
Aug. 5	0	0	0	5.30	.65	4.65	0	.0016	.0016	0	.59	.052	0	.01	1.95	1.65	1476
Sept. 3	0	0	0	5.75	1.55	4.20	0	.0010	.0010	0	.58	.060	0	.01	2.34	1.65	699
Oct. 7	0	0	0	5.60	1.70	3.90	0	.0016	.0016	0	.58	.050	0	.01	0.21	1.70	113
Nov. 4,	0	0	θ	5.45	1.00	4.45	0	.0008	.0008	0	.58	.054	0	.00	2.02	1.50	4
Dec. 2	0	0	0	5.60	1.55	4.05	0	.0008	.0008	0	.60	.050	0	.00	2.15	1.55	4
Yearly avg	0	0	0	5.45	1.25	1.20	.0001	.0015	.0015	,0000	.58	.059	0	.02	2.02	1.55	520

<sup>\*</sup> Sediment grassy.

Chemical and Bacteriological Examination of the Water Supply of the Town of Westerly, giving the Average for the Years 1900–1901, Grouped for Comparison of the Quality of the Water at Different Points of the Supply.

		on	ESID EVA ATIO	Po-		Аммо	ONIA.			Nitro	OGEN.				
Date of			_			Alb	umino	id.				ed.			ຳ
COLLECTION.	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c.
Westerly,															
Pumping Station—															
1900	.00	5.32	1.28	4.04	.0000	.0016	.0016	.0000	.59	. 056	.0000	.00	1.82	1.52	336
1901	.00	5.41	1.27	4.14	.0001	.0016	.0016	.0000	.58	. 059	.0000	.01	2.00	1.54	126
Westerly,															
Drink'g Fount'n-														1	
1900	.00	5.36	1.27	4.09	.0000	.0014	.0014	.0000	.59	.056	.0000	.00	1.79	1.47	34
1901	.00	5.45	1.25	4.20	.0001	.0015	.0015	.0000	.58	.059	.0000	.02	2.02	1.55	520

Chemical and Bacteriological Examination of the Water Supply of the Town of East Providence, the sample being taken from the Ten Mile River, at the Pumping Station at Hunt's Mills.

														=			
	Арр	EARAN	CE.	ON	EVA	PO-		Аммо	NIA.			Nitro	GEN.				
DATE OF					n.			Alb	umino	id.				ned.			ů
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkafinity.	Bacteria per c.
Jan. 2	sl.	v. sl.	.49	6.70	2.35	4.35	.0088	.0186	.0170	.0016	.68	.032	.0022	.62	2.08	.70	3534
Feb. 6	sl.	dec.	.43	7.20	2.15	5.05	.0138	.0212	.0158	.0054	.74	.070	.0016	.51	2.21		1178
Mar. 6	d.	dec.	.53	8.20	2.90	5.30	.0410	.0446	.0374	.0072	.77	.040	.0010	.80	2.28	.90	40920
April 3	v, sl.	sl.	. 60	5.15	2.10	3.05	.0018	. 0222	.0202	.0020	.48	.026	.0002	.61	1.56	.70	673
May 1	v. sl.	sl.	.61	4.90	1.80	3.10	.0022	.0186	.0170	.0016	.42	.016	.0000	.66	1.56	.90	583
June 5	v. sl.	įv. sl	.95	5.60	ર.10	3.50	.0018	.0250	.0244	.0006	.46	.014	.0008	.93	1.56	.93	414
July 3	v. sl.	sl.	.66	6.40	2.20	4.20	.0018	.0292	.0284	.0008	.62	,025	.0002	.60	1.95	1.15	361
Aug. 7	sl.	v. sl.	.29	6.50	1.55	4.95	.0010	.0168	.0160	.0008	1.00	.013	.0006	.33	2.34	1.45	146
Sept. 3	v. sl.	v. sl.	.85	6.95	2.05	1.90	.0018	.0192	.0180	.0012	1.06	.009	.0002	.41	2.34	1.45	192
Oct. 2	v. sl.	sl.	.36	7.10	1.85	5.25	.0016	.0230	.0188	.0042	1.11	.023	.0004	.46	2.21	.98	1426
Nov. 4	v. sl.	sl.	.41	6.50	2.20	4.30	. 0024	.0168	.0156	.0012	.76	.035	trace	.47	2.21	.81	108
Dec. 2	v. sl.	v. sl.	.40	8.25	2.10	6.15	.0106	.0244	.0218	.0026	1.01	.060	.0024	.59	2.68	.88	13826
Yearly avg	sl.	sl.	.51	6.62	2.11	4,51	,0074	.0233	.0209	.0024	.76	.030	.0008	.58	2.00	.90	5591

Chemical and Bacteriological Examination of the Water Supply of the Town of East Providence, sample being the Effluent of the Mechanical Filter, at Hunt's Mills.

	APP	APPEARANCE. ON R.						Аммо	ONIA			Nitre	OGEN.				
					ATIO												
DATE OF					1.			Alb	umino	oid.				ed.			ë
COLLECTION.	Turbidity.	Sediment,	Color.	Total	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c
Jan. 2	0	0	.05	6.75	1.50	5.25	.0086	.0070	.0070	0	.68	.032	.0022	.18	2.73	.00	25
Feb. 6	. 0	0	.05	7.25	1.50	5.75	.0138	.0082	.0082	0	.68	.070	.0016	.12	2.60	.05	4
Mar. 6	0	0	.05	7.15	1.50	5.65	.0386	.0158	.0158	0	.72	.040	.0010	.28	2.60	.10	235
April 3	0	0	.10	5.25	1.70	3.55	-0010	.0074	.0074	0	.42	.026	.0002	.17	1.89	.10	lost.
May 1	0	0	.05	4.70	.80	3.90	.0006	.0062	.0062	0	.40	.011	trace	.15	1.95	.10	0
June 5	0	0	.08	5.05	1.65	3.40	.0014	.0100	.0100	0	.45	.013	.0008	.21	1.76	.21	76
July 3	0	0	.05	5.95	1.50	4.45	.0016	.0104	.0104	0	.60	.025	.0002	.15	2.08	.41	17
Aug. 7	0	0	.00	6.00	1.00	5.00	.0008	.0058	.0058	0	.97	.008	.0006	.07	2.47	.45	1
Sept. 3	0	0	.01	7.25	1.90	5.85	.0018	.0076	.0076	0	1.06	.008	.0002	.11	2.47	.52	2
Oct. 2	0	0	.04	8.30	2.05	6.25	.0002	.0076	.0076	0	1.10	.022	.0004	.17	2.60	.14	1
Nov. 4	0	0	.05	6.65	1.35	5.30	.0018	.0052	.0052	0	.75	.021	trace	.14	2.47	.10	0
Dec. 2	θ	()	.03	7.80	1.70	6.10	.0102	.0092	.0092	0	.95	.040	.0020	.26	2.73	. 15	44
Yearly avg	0	0	.04	6.51	1.51	5.00	.0067	.0081	.0084	.0000	.73	.026	.0008	.17	2.86	.19	36

Chemical and Bacteriological Examination of the Water Supply of the Town of East Providence, giving the average for the years 1900–1901, Grouped for Comparison of the Quality of the Water at Different Points of the Supply.

		ON	ESID EVA	PO-		Аммо	ONIA.			Nitro	OGEN.				
DATE OF			i			Alb	umino	id.				ned.			ນໍ
Collection.	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per e.c.
East Providence, Pumping Station—	58	6 59	9 01	4 59	.0026	.0234	.0205	.0029	.69	.019	.0003	.58	1.86	1.11	730
1901				1	.0074			.0024			.0008				
East Providence, Mechanical Filter—															
1900	.08	6.15	1.63	4.52	.0022	.0109	.0109	.0000	.66	.018	.0003	.18	2.10	. 33	18
1901	.04	6.51	1.51	5.00	.0067	.0084	.0084	.0000	.73	.026	.0008	.17	2.36	.19	36

Chemical and Bacteriological Examination of the Water Supply of the Town of New Shoreham, the sample being taken from Fresh Pond, near the centre of the town.

								100,00									
	АРР	EARAN	ĽE.	ON	ESIDI EVA ATIO	PO-		Амм	ONIA.			NITE	ogen,				
DATE OF								Alb	umino	oid.				ed.			ç.
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine,	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c.
Jau26	v. sl.	sl.	.10	8.80	2.50	6.30	.0314	.0510	.0358	.0152	2.87	.005	0	.33	1.63	.70	1778
Feb. 18	v. sl.	v. sl.	.05	8.55	2.40	6.15	.0360	.0476	.0388	.0088	2.98	.003	0	.36	1.50	.70	25
Mar. 11	. 0	sl.	.10	9.90	2.55	7.35	.0338	.0416	.0328	.0088	2.85	.007	0	.41	1.43	.55	4638
April 2	v. sl.	v. sl.	.08	8.30	2.45	5.85	.0246	.0412	.0342	.0070	z.78	.007	0	.39	1.43	.60	45822
May 13	sl.	sl.	.10	9.70	3.95	5.75	.0092	.0506	.0384	.0122	2.70	.008	0	.56	1.43	.60	13578
June 3	d.	sl.	.11	9.10	3.50	5.60	.0114	.0460	.0396	.0064	2.60	.003	.0006	.45	1.27	1.15	3224
July 11	dist.	sl.	.26	9.80	2.80	7.00	.0036	.0616	.0428	.0188	2.58	.004	0	.51	1.43	.85	156
Aug. 5	sl.	dist.	.06	9.10	3.75	5.35	.0012	.0474	.0392	.0082	2.65	.003	0	.15	1.50	.80	70990
Sept. 3	sl.	dec.	.13	9.90	3.60	6.30	.0048	.0592	.0376	.0216	2.60	.003	0	.45	1.43	.65	5784
Oct. 8	sl.	dist.	.20	10.20	3.50	6.70	.0006	.0654	.0422	.0232	2.70	.001	0	.52	1.56	.70	1319
Nov. 7	v. sl.	dist.	.08	9.65	2.90	6.75	.0022	.0536	.0338	.0198	2.70	.001	0	.38	1,56	.76	1922
Dec. 2	sl.	dec.	.10	11.90	4.30	7.60	.0078	.0838	.0298	.0540	2.20	.003	0	.65	1.19	.60	697
Yearly avg	вl.	sl.	.10	9.57	8.18	6.39	.0139	.0541	.0371	.0170	2.68	.004	.0001	.43	1.45	.72	12454

Chemical and Bacteriological Examination of the Water Supply of the Town of New Shoreham, the sample being taken from Sand's Pond, at the Intake.

(1 at (8 th 100,000.)																	
DATE OF Collection,	Appearance.			RESIDUE ON EVAPO- RATION.			Ammonia.					Nitrogen.					
	Turbidity. Sediment,				Loss on Ignition.	-i			Solution.	id. In Suspension.	Chlorine,	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c. c.
	Turb	Sedin	Color.	Total.	Loss	Fixed.	Free.	Total.	ž E	E S	Chilo	×.	N. N.	Oxyg	Hard	Alka	Bact
Jan. 26	sl	iron sl.	. 19	9.40	2.25	7.15	.0006	.0172	.0142	.0000	3.03	.003	0	0.13	2.05	.67	32
Feb. 18	0	v. sl.	.03	8,35	2.40	5.95	.0012	.0196	.0184	.0012	3 28	.004	0	0.14	1.95	.20	87
Mar11	0	sl.	.11	8.65	1.70	6.95	.0044	.0214	.0192	.002:	2.78	.006	0	0.19	1.50	.:20	6448
April 1	v. sl.	trace	.16	9,20	1.80	7.40	.0002	.0148	.0144	.0004	2.92	.002	0	0.10	2.28	1.00	580
May 13	dist.	v. sl.	.27	9.15	2.25	6.90	:0003	.0118	.010ti	.0012	2.78	.003	0	0.55	2 21	.95	1395
June 3	d.	sl.	iron .90	12.10	3.60	8.50	.0018	.0155	.0388	.0070	3,35	.0⊍6	0	00	2.05	1.15	6400
July 11	dist.	sl.	.65	10.09	1.15	8.85	.0041	.0400	.0084	.0116	3.80	.017	()	0.45	2.86	1.34	
Aug. 5	v. s1	v. sl.	. 14	9.90	2.65	7,25	.0002	.0176	.0160	.0016	3.85	.003	0	0.14	1.95	.65	18000
Sept. 3	gr.	dist.	br.	13,99	3.15	10.75	.0156	.0968	.0572	.0596	3.01	.012	0	1.29	1.95	1.00	51764
Oct. S	0	v. sl.	. 06	10.25	3.80	6.45	.0006	.0212	.0176	.0036	2.95	.003	0	0.15	2.21	.91	91
Nov. 7	0	v. st.	.07	9.00	06.1	7.50	.0010	.0162	.0162	0	2.95	.003	0	0.11	2.21	.93	4826
Dec. 2	v. sl.	v. sl.	.10	9.85	2.10	7.75	.0012	.0156	.0150	.0006	3.25	.005	0	0 11	2.54	1.35	410
Yearly avg.,	sl.	sl.	.22	9.98	2.36	7.62	.0026	.0282	.0222	.0060	3.08	.006	0	0.85	2.15	.56	18206

Chemical and Bacteriological Examination of the Water Supply of the Town of New Shoreham, Giving the Average for the Years 1900-1901, Grouped for Comparison of the Quality of the Water at Different Points of the Supply.

# (Paris in 100.000.)

		RESIDUE ON EVAPO- RATION.		-09	Ammonia.					NITROGEN.					
DATE OF COLLECTION.	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates,	As Nitrites,	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c. c.
New Shoreham, Fresh Pond—															
1900	.14	8.72	2.55	6.17	.0075	.0484	.0298	.0186	2.58	.012	.0000	.40	1.22	.67	24762
1901	.10	9.57	3.18	6.39	.0139	.0541	.0371	.0170	2.68	.004	.0001	. 13	1.45	.72	12154
New Shoreham, Sands Pond—															
1900		13.57	4.35	9.22	.0287	.0556	.6455	.0101	3.62	.016	.0053	.96	2.28	1.23	2897
1961	.22	9.98	2.36	7.62	.0026	.0282	.0223	.0060	3.08	.006	.0000	.35	2.15	.86	18200

Averages of Results of Chemical and Bacteriological Examinations of all the Water Supplies in the State, January to December inclusive, for the year 1901.

_															- 1		-
	APP	EARA	NCE.	ON	ESID EVA AT10	Р0-		Амм	ONIA.			Nitr	OUEN.				
					Ţ			Alb	umin	oid.				ed.			0.
	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition,	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Hardness.	Alkalinity.	Bacteria per c.
Pettaconset	sl.	sl.	.44	5.83	2.10	3.78	.0012	.0248	.0207	.0041	.42	.013	.0003	.67	1.41	.82	4032
Washington	v. sl.	v. sl.	.45	3.86	1.58	2.28	.0015	.0173	.0163	.0010	.28	.004	0	.59	. 64	.49	792
Норе			.79	3.93	1.49	2.44	.0005	.0154	.0145	.0009	.26	.004	0	.53	.68	.52	694
Laboratory Tap	sl.	sl.	.41	6.18	1.93	4.25	.0005	.0224	.0193	.0031	,.50	.013	.0001	.57	1.71	.96	8161
P. V. Water Co	v. sl.	v. sl.	.29	3.67	1.44	2,23	.0012	.0159	.0151	.0008	-35	.016	0	.40	.80	.57	2341
Knights' Spring	0	0	.00	6.39	2.22	4.17	.0004	.0020	.0020	.0000	.81	.321	0	.01	2.03	.32	1622
Coventry Water Co	0	0	.04	2.17	.68	1.49	.0002	.0074	.0074	.0000	.29	.003	0	.08	.30	.26	1382
E. Greenwich	v. sl.	sl.	.40	4.51	1.45	3.06	.0003	.0114	.0104	.0010	.40	.009	0	.44	1.13	.87	2144
Woonsoeket, Res. 3	sl.		.58	4.15	2.35	1.80	.0034	.0469	.0317	.0152	.22	.003	0	.82	.58	.48	819
" P. Sta	v. sl.	v. sl.	. 63	4.20	2.00	2.20	.0032	.0247	.0231	.0016	.24	.006	0	.68	.90	.56	882
" Supts. Office	sl.	sl.	. 64	4.66	2.11	2.55	.0017	.0277	.0226	.0051	.24	.006	0	.79	.98	.59	1177
Pawtucket, Intake	v. sl.	v. sl.	.31	4.23	1.44	2.79	.0012	•0169	.0159	0010	.32	.008	0	.38	1.40	.98	1135
" Тар			.31	1.14	1.37	2.77	.0008	.0139	.0136	.0003	.32	.009	0,	. 36	1.38	. 95	3547
Bristol, P. Sta "Tap, Clerk's		sl.	.81	9.31	3.15	6.16	.0029	.0358	.0323	.0035	2.04	.007	0	1.11	2.22	.84	1001
Office			.79	9.40	3.04	6.36	.0012	.0341	.0304	.0037	2.03	.006	0	1.06	2.33	. 93	3074
Narrag., P. Sta  " Office Water	44	**	.85	5.37	2.25	3.12	.002:	.0257	.0223	.0034	.57	.006	0	.94	.89	.50	2760
Co			.88	5.39	2.20	3.19	.0005	.0205	.0188	.0017	.59	.007	0	.87	1.15	.71	19884

Arerages of Results of Chemical and Bacteriological Examinations of all the Water Supplies in the State, January to December inclusive, for the year 1901.—Concluded.

	App	EARAN	CE.	ON	EVAL ATION	PO-		Аммо	ONIA,			NITE	ogen.				
	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Alkalinity.	Bacteria per c. c.
Narrag., Gladstone Spring	0	0	.00	6.86	1.36	5.50	.0000	.0012	.0012	.0000	1.02	.086	0	.00	1.95	1.23	67406
Newport, Easton's Pond		sl.	.30	9.11	3.36	5.75	.0230	.0540	.0405	.0135	1.57	.019	1000.	.65	2.65	1.88	1820
Newport, Eng Cottage,			.25	9.28	2.92	6.36	.0208	.0383	.0338	.0045	1.75	.027	.0001	.51	2.96	1.94	6162
Newport, Office Bd. of Health			.23	9.50	2.90	6.60	.0145	.0358	.0342	.0046	1.76	.029	.0002	.51	3.00	2.11	2345
Jamestown, No. P. Station	v. sl.	v. sl.	.86	8.25	3.41	4.81	.0035	.0441	.0409	.0032	1.32	.020	0	1.92	1.92	.88	10401
Jamestown, So. P. Station,	٤٠		.08	12.41	4.08	8.33	.0006	.0067	.0063	.0004	2.29	.335	.0001	.14	3.99	1.32	7142
Jamestown, Wat- son's Store		.,	.38	10.85	3.60	6.75	.0014	.0260	.0241	.0019	1.75	.177	.0001	.60	3.32	1.74	11016
Westerly, P. Sta	()	0	.00	5.41	1.27	4.14	.0001	.0016	.0016	.0000	.58	.059	0	.01	2.00	1.54	1269
· Drinking Fountain	0	()	.00	5.45	1.25	4.20	.0001	,0015	.0015	.0000	.58	.059	0	.02	2.02	1.55	520
E. Prov., P. Sta	sl.	sl.	.51	6.65	2.11	4.51	.0074	.0233	.0209	.0021	.76	.030	.0008	.58	2.00	.90	5591
" Mechani cal Filter	0	0	.01	6.51	1.51	5.00	,0067	.0081	.0081	.0000	.78	.026	.0008	.17	2.36	. 19	36
N.Shoteham.Fresh Pond		st.	. 10	9.57	3.18	6.89	.0139	.0511	.0371	.0170	2.68	.001	.0001	. 43	1.45	.72	12451
N.Shoreham, Sands Pond		(+	. 22	9.95	3.36	7.62	.0026	.0282	.0322	.0060	3.08	.006	0	.35	2.15	.86	18206

# EXAMINATION OF SEWAGE WASTES.

One of the most difficult problems which is presented for solution to boards of health is the disposal of sewage wastes. Few inland towns are so situated as to be able to discharge their crude sewage into a nearby water-way. It must be treated and purified before final disposal, or a nuisance will rapidly be created which will demand summary treatment.

A very good understanding of this subject has been established in England, and the various commissions and controlling boards are prepared to recommend methods for disposal of sewage wastes for any given town.

It so happens that the sewages of no two towns are of the same character. The size of the town, the character of the population, the introduction of manufacturers' wastes, and the presence of an ample water supply will each modify materially the density and quality of the sewage. Even the conditions of a water service which is sold by meter will cause a considerable difference in the character of the sewage.

The State of Massachusetts has for many years made a study of these variable quantities, and has published yearly most valuable data.

With the same end in view this board has, with its increased facilities for chemical analyses, undertaken to consider the stable and the varying conditions attending the disposal of the sewage wastes of those cities in the State which have made an effort to purify their sewage before final disposal. These cities are Pawtucket, Woonsocket, and Central Falls.

All of these cities, realizing that to dispose of their crude sewage by delivering it untreated into the streams near them would sooner or later call for censure, made provision to meet the existing conditions.

The city of Pawtucket, in 1894, established a filtration system for the treatment of the sewage from a certain section.

The system includes the reception of the sewage, for a period of from eight to twelve hours, in tanks 100 feet long, 30 feet wide, and 3 feet deep. Being held in one of the two tanks for such time as is required for it to flow through from one end to the other, a certain amount of sedimentation takes place, and the supernatant fluid flows over into the second tank. From this latter, at certain intervals, the fluid sewage is discharged upon sand beds, which, after a certain period of rest, are again dosed, or treated with another flowage.

With this experiment, the city engineer of Pawtucket, Mr. George A. Carpenter, has undertaken a series of comprehensive tests to determine the most advantageous means of treating the sewage of his city. Accordingly, in conjunction with the facilities offered by the laboratories of the board, a test was made of the efficiency of the different filters under varying conditions, different forms of filtering media were utilized, and the so-called "septic" treatment was given an extended trial.

The conditions of these various tests during the year will be found under the report of the city engineer of Pawtucket, on pages 23 to 35 inclusive. The results, also, are given in the following tables.

The city of Woonsocket, having a sewage of an entirely different character than that produced at Pawtucket, being weaker, utilizes the filtration system only, and equally good results are obtained as with the more complex sewage of the first city. The results are given in the following tables.

The city of Central Falls, having a sewage also weaker than that in Pawtucket, has tried the filtration and the septic system, and although the detail of results have not been so thoroughly carried out, yet enough information has been obtained to show where defects exist and wherein they may be improved. The results are given in the following tables.

The data obtained from all these results are extremely instruc-

tive, not only to the cities for which the work has been done, but offer suggestions for other boards of health and cities to whom these problems are liable to occur at any time.

It is hoped that they will serve as a contribution to the extensive and valuable reports issued by the Massachusetts State Board of Health.

The results are not commented upon in this issue, owing to the short time during which the experiments have been carried on, and because some of the work has been extended into the next year.

The analyses are given in the order of sewage, septic sewage, and effluents from different beds. At the Woonsocket plant the septic process is not used. The sewage of Pawtucket is the heaviest. Good results have been obtained with the use of the septic process, both in Pawtucket and Central Falls. The purification of the sewage is considerable at all three places, the effluent after filtration being as clear as a spring water.

The effluent from the filter beds at Central Falls is delivered into a small stream. Analyses of water taken from this stream at a point above where the effluent discharges into it have been made at the same time that the determinations on the effluent sewage were made. This has been done for the purpose of determining whether the addition of the sewage effluent caused an increased contamination of the stream, or if the water in the stream above was not of a poorer quality than the purified sewage.

A description of the plant located at Pawtucket may be found on pages 24-33, together with cost of operation and data connected with the operation of the plant.

The city of Providence has established a system of chemical purification and sedimentation for all the sewage of the city. Reference to the plant will be found on page 42, accompanied with plans and views of the tanks, chemical house, and sludge press house, and one of the interior of the press room.

Chemical and Bacteriological Examination of the Sewage of the City of Pawtucket, the sample being taken from the crude sewage as it is being collected in the receiving tank.

(Parts in 100,000.)

						(Pai	rts in 1	00,00	0.)						
	API	'EARAN	CE,	ox	SIDU EVAI	0-	A	м мо	NIA.			Nitro	GEN.		
DATE OF								Albu	min	oid.				ed.	
COLLECTION.	Turbidity.	Sediment.	Color,	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen consumed	Bacteria per c. c.
Jan. 22				97.4	52.6	44.8	4.90	.97	.50	.47	6.20			13.80	16,120,000
Jan. 30				63.2	38.2	25.0	5.80	.85	.57	.28	6.40			9.00	14,260,000
Monthly avg.				80.3	45.4	34.9	5.35	.91	.54	.37	6.30			11.40	15,190,000
Feb. 13				104.8	49.4	55.4	20.40	1.70	1.01	.69	20.66	••••		14.90	9,720,000
Feb. 20				123.6	57.2	66.4	16.80	2.32	1.98	.34	23.82			18.70	Too numerous,
Feb. 27				88.6	52.6	36.0	7.80	1.49	. 62	.87	8.86			16.00	6,485,000
Monthly avg.				105.7	53.1	52.6	15.00	1.83	1.20	. 63	17.78			16.58	8,102,500
Mar. 14				91.4	66.2	₹5.2	6.00	.85	.60	.28	7.02			13.70	15,655,000
Mar. 28				108 4	77.1	31.0	6.60	1.31	.72	.59	8.62			22.70	10,015,000
Monthly avg.				99,9	71.8	28.1	6.30	1.10	.66	.44	7.82			18.20	12,885,000
April 10				49.0	28.8	20.2	4.50	.71	.81	.40	6.38			7,40	23,684,000
May 1				87.4	51.6	35.8	6.20	.86	.75	.11	7.72			12.90	3,380,000
May 15		· · · · · ·		77.2	55.8	21.4	6.80	.99	.51	. 45	9.18			10.60	53,320,000
May 25				84.0	47.0	36.4	5.40	1.12	.52	.60	12.58			11.70	50,220,000
Monthly avg.				82.9	51.7	31.2	6.13	. 99	.60	.39	9.83			11.78	35,640,000

Chemical and Bacteriological Examination of the Sewage of the City of Pawtucket, the sample being taken from the crude sewage as it is being collected in the receiving tank.—Concluded.

-	-						18 111 10				_				
	Арр	EARAN	ICE.	ON	EVA:	PO-	A	ммо	NIA.			Nitr	OGEN.		
DATE OF								Albı	ımin	oid.				ed.	
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chiorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bactería per c. c.
June 12			····	105.4	62.2	43.2	7.00	1.66	.78	.88	11.60			15.50	16,120,000
June 26				102.6	55.0	47.6	8.20	1.08	.53	.55	15.64			10.90	16,230,000
Monthly avg.				104.0	58.6	45 4	7.60	1.37	.66	.71	13.62			13.20	16,175,000
July 10				91.8	49.0	42.8	9.00	1.30	.78	.52	13.58			10.90	11,250,000
July 24				112.4	53.6	58.8	8.20	1.45	.48	.97	13.84			12.70	8,070,000
Monthly avg.				102.1	51.3 *	50.S	8.60 *	1.38	.63	.75	13.71			11.80	9,660,000
Aug. 22				87.0	48.0	39.0	8.40	1.09	.60	.49	10.16	· · · · · · · · · · · · · · · · · · ·		13.70	8,210,000
Sept. 4				102.6	44.4	58.2	9.20	1.40	.70	.70	14.36			11.10	4,580,000
Oct. 2				82.2	46.4	35.8	8.40	1.24	.80	.44	11.34			10.10	65,800,000
Oct. 16				96.8	52.0	14.8	8.80	1.36	.93	.43	12.98			14.30	24,760,000
Oct. 30				106.6	61.8	14.8	9.20	1.57	.65	.92	14.26			14.70	14,260,000
Monthly avg.				95.2	53.4	41.8	8.80	1.39	.80	.59	12.86			13.03	84,940,000
Yearly avg				93.1	52.5	40.6	8.88	1.27	.72	.55	11.76			13.27	19,586,263

<sup>\*</sup> Septic tank discontinued.

Chemical and Bacteriological Examination of the Septic Sewage of the City of Pawtucket, taken from the septic tank, having been subjected to these conditions for from eight to ten hours.

					ESID										
	APF	PEARAN	CE,		EVA ATIO		A	MMO	MIA.			Nitr	OGEN.		
DATE OF COLLECTION.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine,	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c. c.
Jan. 2				63.2	36.4	26.8	7.00	.83	.71	.12	7.28			10.10	4,260,000
Jan. 16				52.4	13.6	38.8	3.80	.34	.21	.13	2.88			5.30	70,000
Jan. 30				61.0	34.2	26.8	7.00	.84	.60	.24	7.68			10.50	8,265,000
Monthly avg.		• • • • •		58.9	28.1	30.8	5.93	.67	.51	.16	5.95			8.63	4,198,000
Feb. 13			• • • • • • •	62.4	32.6	29.8	8.00	.84	.64	.20	7.80			11.00	5,865,000
Feb. 20				58.4	30.€	27.8	7.00	.83	.65	.18	7.32			11.90	1,060,000
Feb. 27				67.0	37.2	29.8	7.40	.88	.75	.13	8.42			12.30	3,081,400
Monthly avg.				62.6	33.5	29.1	7.47	.85	.68	. 17	7.85			11.73	3,335,467
Mar. 13			· · • • • •	47.6	24.4	23.2	2.80	.48	.38	.10	4.02			8.80	1,880,000
April 11		•••••		54.4	30.2	24.2	5.40	.66	.41	.22	7.42			8.50	8,760,000
May 2				48.8	21.8	27.0	6.00	.69	.60	.09	8.02	 		7.50	622,480,000
May 15				67.2	31.6	35.6	8.20	.74	. 68	.11	12.02			7.30	11,440,000
May 28				71.0	10.0	31.0	7.80	.74	.66	.08	12.18			8.40	9,300,000
Monthly avg.				63.3	31.1	32.2	7.33	.72	.63	.09	10.74			7.78	214,406,667

Chemical and Bacteriological Examination of the Septic Sewage of the City of Pawtucket, taken from the septic tank, having been subjected to these conditions for from eight to ten hours.—Concluded.

	App	EARAN	CE.	ON	EVA ATIO	PO-	2	Аммо	NIA.			Nitr	ogen.		
DATE OF								Albu	min	oid.				ed.	<u>ಲ</u> ೆ
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Bacteria per c. c.
June 12				67.6	30.8	36.8	7.40	.82	.70	.12	11.70	• • • • • •		7.30	11,020,000
June 26		<b></b> .		61.4	30.2	31.2	6.20	.59	.48	.11	9.02			6.80	15,650,00
Monthly avg.				64.5	30.5	34.0	6.80	.71	.59	.12	10.36			7.05	8.890,00
July 10				74.8	84.4	40.4	7.40	.80	.56	. 24	12.80			6.60	16,100,00
July 24				65.0	27.4	37.6	6.20	. 63	.50	.13	11.38			7.20	1,260,00
Monthly avg.				69.9	30.9	39.0	6.80	.72	.53	.19	12.09			6.90	8,680,000
Yearly avg				61.7	30.4	31.3	6.51	.81	.64	.17	8.66			8.66	48,032,76

Chemical and Bacteriological Examination of the Effluent or Filtered Sewage of the City of Pawtucket, being taken from the effluent pipe from regular sand beds numbered 10 and 11.

	APPI	EARAN	CE.	Ev	IDUE APOR	A-		Аммо	ONIA.			Nitro	OGEN,		
DATE OF								Alt	umino	oid.				ed.	a <sup>‡</sup>
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites,.	Oxygen Consumed.	Bacteria per c. c.
Jan. 17	sl.	v. sl.	1.40	24.7	5.1	19.6	4.40	.1480	.1440	.0040	5.44	.090	.0060	2.28	498,000
Feb. 14	0		1.40	38.7	14.4	24.3	6.48	.2600	.1840	.0760	7.40	.029	0	3.80	722,500
Mar. 14	sl.		1.25	36.2	11.2	25.0	5.60	.1100	.1040	.0060	6.20	.032	.0030	2.68	200,000
May 16	d.	6.6	rd. br.	43.7	15.2	28.5	2.80	. 10 10	.1000	.0040	8.22	1.750	.0600	1.58	159,000
June 13	sl,	dist.	rd. br.	50.7	13.0	37.7	2.16	.1320	.0960	.0360	11.76	2.140	.0600	1.28	5,000
July 10	v. sl.	Inorg	.22	53.5	18.6	34.9	1.16	.0660	.0380	.0280	9.98	3.490	.0260	.66	47,500
Nov. 26	dist.	sl.	br.			• • • • •	1.96	.0820	.0780	.0040	6.40	.620	.0200	2.62	998,200
Yearly avg	sl.	sl.		41.2	12.9	28.3	3.51	.1289	.1063	. 0226	7.91	1.164	. 0250	2.13	975,748

Chemical and Bacteriological Examination of the Effluent or Filtered Sewage of the City of Pawtucket, being taken from the effluent pipe from regular sand beds numbered 12 and 13.

						( 1	C1 65 111	100,00							
	Аррі	EARAN	CE.	on	ESIDU EVA	PO-		Аммо	NIA.			Nitro	GEN.		
DATE OF								Alb	umino	id.				ed.	
Collection.	Turbidity.	Sediment.	Color,	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine,	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c. c.
Jan. 3	d.	v. sl.	.86	29.1	10.8	18.3	2.80	.1400	.1360	.0040	5.64	1.55	.0483	2.00	118,600
Jan. 31		6.6	.86	28.8	9.2	19.6	4.40	.1680	.1480	.0200	6.32	.70	.0520	2.36	325,500
Monthly avg.			.86	29.0	10.0	19.0	3.60	.1540	.1420	.0120	5.98	1.13	.0502	2.13	222,050
Feb. 28	đ.	v. sl	.90	38.7	13.3	25.4	6.40	.2400	.2280	.0120	7.52	.07	.0010	3.58	445,000
May 3	gr.	d.	br. iron	45.9	18.7	27.2	2.80	.1280	.1160	.0120	6.00	3.46	.0600	1.62	422,000
May 29	v. sl.	sl.	.20	64.7	31.9	32.8	1.40	.0520	.0380	.0140	9.32	4.38	.0180	.88	2,139,000
Monthly avg.			• • •	55.3	25.3	30.0	2.10	.0900	.0770	.0130	7.66	3.92	•0390	1.25	1,280,500
June 26	v. sl.	sl.	.16	64.8	26.3	38.0	1.64	.0440	.0420	.0020	9.62	4.81	.0300	.71	30,000
July 24	0	trace	.14	53.9	23.2	30.7	.88	.0300	.0300	.0000	10.38	4.57	.0140	.46	103,000
Nov. 13	v. sl.	0	.21	42.8	20.8	22.0	.88	.0440	.0440	.0000	6.80	3,95	.0100	.74	190,000
Yearly avg	sl.	sl.		46.0	19.3	26.7	2.65	.1058	.0978	.0080	7.70	2.94	.0292	1.54	471,650

Chemical and Bacteriological Examination of Effluent obtained from bed 14, which is a contact bed, made of crushed stone, for the purpose of treating the septic sewage.

	Аррі	EARANG	CE.	ON	EVAI	PO-		Аммо	ONIA.			Nitro	OGEN.		
DATE OF								Alb	umino	id.				ned.	
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c.c.
Jan. 10	gr.	sl.	br.				2.84	.3240	. 2560	.0680	6.84	.02	0	3.10	17,980,000
Feb. 14	gr.	v. sl.	br.				4.40	.4000	.2840	.1160	7.88	.13	.0010	4.00	2,960,000
April 11	gr.	sl.	. 60				2.88	.2600	.1880	.0720	7.98	.87	.0060	3.10	4,260,000
May 16	gr.	v. sl.	br.				2.96	. 4360	.2960	.1400	9.58	.11	.0140	4.72	2,511,000
June 13	gr.	sl.	br.				5.20	.4640	. 4400	.0240	13.00	.04	0	4.32	81,000
June 26	6.6	6.6					2.80	.3200	.3000	.0200	9.78	.02	0	3.68	3,370,000
Monthly avg.	4.6	h 6					4.00	.3920	.3700	.0220	11.39	.03	0	4.00	1,725,500
July 24	gr.	dlst.	.90				2.64	.3320	,2800	.0520	10.20	.04	0	3.40	1,400,000
Oct. 30	dec.	sl.	br.				2.32	.3680	.1880	.1800	7.02	.01	0	3.64	2,560,000
Yearly avg	gr.	sl.		ļ			3.26	. 3630	.2790	.0840	8.45	.14	.0020	3.75	4,390,250

Chemical and Bacteriological Examination of Effluent obtained from Bed 15, which is a contact bed, made of soft coke cinders, for the purpose of treating the septic sewage.

	Аррі	EARAN	CE.	ON	ESIDI EVA	PO-		Аммо	ONIA.			Nitro	GEN.		
DATE OF	,							Alb	umino	id.				ed.	<b>ೆ</b>
Collection.	Turbidity.	Sediment.	Color.	Totai.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c. c
Jan. 3	gr.	sl.	.80				2.40	.3520	.2680	.0840	6.20	.770	.0200	4.00	9,349,000
Jan. 17	d.	v. sl.	.55				.90	.1040	.0800	.0240	4.22	2.410	.0120	1.18	140,000
Jan. 31	gr.	sl.	br. .80				3.32	.2840	.2400	.0440	6.78	1.270	.0060	3.02	3,330,000
Monthly avg.		sl.	.72				2.21	.2467	.1960	.0507	5.73	1.483	.0127	2.73	4,278,000
Feb. 14	gr.	v. sl.	.br.				3.12	.2640	.2400	.0240	7.82	.700	.0020	2.88	1,805,000
Feb. 28	đ.	v. sl.	br.				3.20	. 3200	.2320	.0880	7.90	1.090	.0050	3.84	860,000
Monthly avg.		v. sl.	br.				3.16	.2920	.2360	.0560	7.86	.895	.0035	3.36	832,500
Mar. 14	d.	sl.	br. .65				1.42	.2100	.1420	.0680	4.40	1.640	.0300	2.58	1,495,000
April 11	gr.	sl.	.60				2.72	.2400	.1760	.0640	7.98	1.340	.0180	3.00	2,590,000
Мау 3	gr.	v. sl.	.50			ļ	2.44	.2600	.1800	.0800	6.38	.910	.0160	2.72	1,742,000
May 16		v. sl.	br.			,	3.60	.3800	.2600	.1200	9.68	.031	0	3.80	5,146,000
May 28	d.	sl.	br.				2.82	.2640	.2160	.0480	7.76	. 930	.0640	3.24	
Monthly avg.	gr.	v. sl.					2.79	.3013	.2187	.0826	7.94	.624	.0267	3.25	3,414,000

Chemical and Bacteriological Examination of Effluent obtained from Bed 15, which is a contact bed, made of soft coke cinders, for the purpose of treating the septic sewage.—Continued.

	App	EARAN	CE.	on I	SIDU EVAI	-09		Амм	ONIA.			Nitr	ogen.		
DATE OF								Alb	oumino	oid.				red.	ကိ
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Bacteria per c. c.
June 13	gr.	sl.	br.				5.20	.4600	.4440	.0160	13.04	.035	0	4.18	3,472,000
June 26	66		6.6				4.48	.2200	.2080	.0120	9.96	.020	0	2.88	47,500
Monthly avg.		64					4.84	.3400	.3260	.0140	11.50	.028	0	3.53	1,759,750
July 10	gr.	d,	br.			ļ ļ	3.76	.4480	.3040	.1440	9.98	.044	0	3.64	5,610,000
July 18	dec.	sl.	br.				2.80	.2960	.2240	.0720	10.82	.014	0	2.64	1,269,000
July 24	gr.	dist.	br. 1.00				2.64	.3120	.2120	.1000	10.38	.015	0	2.92	1,271,000
Monthly avg.	61						3.07	.3520	.2467	.1053	10.39	.024	0	3.07	2,718,667
Sept. 4	gr.	dec.	.95				2.64	.3000	.2240	.0760	11.78	.050	.1000	2.44	17,860,000
Oct. 2	dec.	dlst.	1.00			. ,	2,20	.2960	.2400	.0560	7.00	.040	0	2.36	11,190,000
Oct. 16	66	sl.	.80				1.84	.2560	.1600	.0960	6.82	.010	.0010	2.50	121,600,000
Oct. 80	64		br.				2.08	.2560	.1760	.0800	6.70	.004	.0400	2.66	2,860,000
Monthly avg.	66						2.01	.2693	.1920	.0773	6.84	.018	.0137	2.51	45,213,883
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Chemical and Bacteriological Examination of Extluent obtained from Bed 15, which is a contact bed, made of soft coke cinders, for the purpose of treating the septic sewage.—Concluded.

	APP	EARAN	CE.	ON	ESID EVA	PO-		Аммо	ONIA.			Nitro	OGEN.		
DATE OF								Alb	umino	id.				ď.	
Collection.	Turbidity.	Sediment,	Color.	Total	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per 6, 6.
			-												
Nov. 14	gr.	dec.	br.				1.68	.3160	.2180	.0680	6.98	1.74	.0700	3.44	liquefied.
Nov. 27	dec.	sł.					1.24	.2960	.2640	.0320	6.44	.39	.0500	3.60	5,425,000
Monthly avg.							1.46	.3060	.2560	.0500	6.71	1.07	.0600	3.52	
Dec. 12	dec.	sl.	br.				1.58	.2300	.1520	.0780	5.78	.61	. 0520	2.84	15,500
Dec. 26			br.				1.80	.2340	.1880	.0460	4.50	.47	.0480	3.32	631,000
Monthly avg.	**		br. .65				1.69	. 2320	. 1700	.0620	5.14	.54	.0500	3.08	323,250
Yearly avg			••••				2.72	.2996	.2311	.0685	8.09	1.001	.0250	3.03	9,390,429

Chemical and Bacteriological Examination of Effluent obtained from Small Experimental Filter representing a contact bed, No. 16, made of coke, for the purpose of further treating the effluent received from bed 15, making a double contact treatment.

												•			
	Аррі	EARANC	CE.	on	EVA ATIO	PO-		Аммо	ONIA.			Nitro	GEN.		
DATE OF								Alb	umino	oid.				ed.	ಲೆ
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c. c
Jan. 3	gr.	v. sl.	.50				1.30	.2400	.2160	.0240	6.20	1.61	.0200	2.60	3,298,400
Jan. 17	sl.		.50				.60	.0960	.0500	.0460	5.16	2.53	.0200	1.10	8,500
Monthly avg.		Ç.	.50				.95	.1680	. 1320	.0350	5.68	2.07	.0200	1.85	1,653,450
Feb. 28	d.	v. sl.	br.				2.40	.2760	.1720	.1040	7.88	1.81	.0260	3.30	380,000
Mar. 14		sl.	br.				1.12	.1580	.1220	.0360	4.72	1.76	.0160	2.10	197,100
April 11		v. sl.	br.				2.24	.2340	.1380	.0960	7.98	1.61	.0600	2.52	713,000
May. 2			.40				1.60	.1760	.1640	.0120	6.28	1.50	.0400	2.16	1,442,500
May 16			br.				2.80	.2520	.1760	.0760	9.92	1.29	.0320	2.66	1,320,000
May 28			.55				1.20	.2240	.1160	.1080	7.80	1.52	.0200	2.48	1,160,000
Monthly avg.		v. sl.					1.87	.2173	. 1520	.0653	8.00	1.44	.0307	2.48	1,307,500
June 13	d.	v. sl.	br.				2.60	.3440	. 2520	.0920	13.78	2.24	.0080	2.94	3,472,000
June 26		sl.					1.60	.2760	.2000	.6760	9.96	1.51	.3000	2.56	2,062,000
Monthly avg.				ļ			2.10	.8100	.2260	.0840	11.87	1.88	. 1540	2.75	2,767,000

Chemical and Bacteriological Examination of Effluent obtained from Small Experimental Filter representing a contact bed, No. 16, made of coke, for the purpose of further treating the effluent received from bed 15, making a double contact treatment.—Concluded.

								111 100,							
	Аррі	EARAN	CE.	ON	EVA ATIO	PO-		Аммо	ONIA.			Nitro	GEN.		
DATE OF					٦.			Alb	umino	id.				red.	ó
Collection.	Turbidity.	Sediment,	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine.	As Mtrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c.
July 10	d.	sl.	.60			••••	2.24	.3080	. 1560	.1520	10.40	2.33	.3100	2.70	2,350,000
Sept. 4	d.	sl.	.70				1.60	.2640	.1680	.0960	11.74	1.54	.2000	2.20	1,674,000
Oct. 2	dec.	sl.	.47				.44	.1240	.0920	.0320	6.52	1.57	.0240	1.40	2,650,000
Oct. 16	66	v. sl.	.50				.42	.1100	.0960	.0140	6.78	1.53	.0060	1.58	312,500
Oct. 30	d.	sl.	.50				.42	.1560	.0960	.0600	6.78	1.22	.0060	1.74	470,000
Monthly avg.			.49				.43	.1300	.0947	.0353	6.69	1.44	.0120	1.57	1,144,167
Nov. 14	gr.	v. sl.	br.				.48	.1560	.1240	.0320	7.02	2.42	.0030	1.74	840,000
Nov. 27	dec.		br.				.70	.1520	.1380	.0140	6.42	1.72	.0030	1.84	1,387,000
Monthly avg.			br. .83				.59	.1540	.1310	.0230	6.72	2.07	.0030	1.79	1,119,500
Yearly avg	d.	v. sl.					1.40	.2086	.1456	.0630	7.96	1.72	.0661	2.21	1,396,294

Chemical and Bacteriological Examination of Expluent obtained from Bed 17, which is a contact bed, made of cinders, for the purpose of treating the septic sewage.

	APPE	CARANC	E.	ON	EVA:	PO-		Аммо	NIA.			Nitro	GEN.		
Date of					-			Alb	umino	id.				ned.	ပ်
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c. c
Jan. 3	gr.	v. sl.	.50				.70	.1920	.1460	.0460	6.20	2.41	.0080	2.36	3,162,000
Jan. 17	d.		.50				. 55	.1000	.0480	.0520	5.16	3.01	.0240	1.08	253,500
Jan. 31			.60				1.60	.2080	.1380	.0700	6.50	2.01	.0560	1.98	483,600
Monthly avg.			. 53				.95	.1667	.1107	.0560	5.95	2.48	. 0293	1.81	1,299,700
Feb. 28	d.	v. sl.	br.				2.12	.2080	.1800	.0280	7.76	1.68	.0400	2.88	690,000
Mar. 14		sl.	.55				1.12	. 1040	.0900	.0140	4.72	1.71	.0460	1.70	270,940
April 11		v. sl.	.50				1.92	.1660	.1180	.0480	7.74	3.02	.0600	2.20	899,000
May 2		6.6	.40				.80	. 1240	.1080	.0160	6.20	2.58	.0240	1.56	21,500
May 28			.42				.60	.1520	.1140	.0380	8.64	3.49	.0300	1.80	880,000
Monthly avg.			.41				.70	.1380	.1110	.0270	7.49	3.04	.0270	1.68	450,750
June 26	d.	sl.	br.				2.24	.2920	.2000	.0920	9.88	.64	.2400	2.52	20,150,000

Chemical and Bacteriological Examination of Effluent obtained from Bed 17, which is a contact bed, made of cinders, for the purpose of treating the septic sewage.—Concluded.

						(1	artsin	100,00	0.)						
	App	EARANG	œ,	on l	SIDU EVAI TION	0-		Аммо	ONIA.			Nitro	OGEN.		
DATE OF					_			Alb	umino	id.				ed.	ં
Collection.	Turbidity.	sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen consumed.	Bactería per c. c
July 10	d.	sl.	.60				1.28	.2400	.1880	.0520	9.80	3.90	.2400	2.24	1,060,000
July 24			.65				.68	.1960	. 1440	.0520	10.40	2.31	.1100	1.96	3,379,000
Monthly avg.			.63				.98	.2180	.1660	.0520	10.10	3.11	.1750	2.10	2,219,500
Sept. 4	d.	dec.	.45			• • • •	.80	.2040	.1200	.0840	11.24	8.06	.0680	1.84	382,250
Oct. 2	dec.	sl.	.70				.60	.1980	.1400	.0580	6.52	1.36	.0880	1.76	10,416,000
Oct. 16		v. sl.	.60				.68	.1750	.1120	.0660	6.70	1.08	.0240	2.08	
Monthly avg.			.65				.64	.1880	.1260	.0620	6.61	1.22	.0560	1.92	,
Nov. 14	gr.	v. sl.	br. .85				.80	.2000	.1680	.0320	7.08	2.38	.0030	2.26	211.500
Nov. 27	dec.	sl.	br. .80				.91	.1620	.1380	.0210	6.40	1.23	.0040	2.76	5,401,000
Monthly avg.			br. .83				.87	.1810	. 1530	.0280	6.74	1.81	.0035	2.51	2,806,250
Dec. 12	dec.	sl.	.45				.40	.1260	.1140	.0120	5.80	1.97	.0500	1.66	95,600
Dec. 26	**	v. sl.	.50				.50	. 1340	.1180	.0160	4.24	1.15	.0040	1.83	1,116,000
Monthly avg.	41		.48				.45	.1300	.1160	.0140	5.02	1.56	.0270	1.75	603,800
Yearly avg	d.	sl.					1.02	. 1769	.1325	.0444	7.28	2.17	.0622	2.03	1,716,038

Chemical and Bacteriological Examination of Effluent taken from pipe receiving the combined effluents of all the regular sand filter beds, taken at the point where it discharges into the stream.

	Арі	PEARAN	ICE.	ON	ESIDI EVA ATIO	.РО-		Аммо	ONIA,			Nitro	GEN,		
DATE OF								Alb	umino	id.				ed.	ల్
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension,	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c.
June 10	d.	đ.	br.	35.4	10.9	24.5	4.24	.1560	.1400	.0160	6.68	.13	.0060	2.36	469,600
July 5	**	dist.	red br.	46.0	8.5	37.5	4.00	. 1240	.1200	.0040	10.78	lost	.0120	2.34	5,000
Aug. 22	dist.		.41	52.5	15.5	37.0	2.00	. 1200	.0840	.0360	10.22	2.76	.1040	1.64	420,000
Sept. 4	0		.16	47.0	12.4	34.6	1.32	.0620	.0360	. 0260	9.62	2.83	.0300	.90	114,500
Oct. 2	v. sl.	dec.	.21	39.8	15.5	24.3	.74	.0460	.0360	.0100	6.90	2.97	.0180	.84	129.500
Oct. 16		dec. floc.	.23	45.4	16.4	29.0	1.06	.0860	.0540	.0320	7.00	3.05	.0300	1.19	30,000
Oct. 30	sl.	floc. dec.	.23	41.8	17.1	24.7	1.40	.0620	.0340	.0280	7.38	.296	.0280	1.17	3,000
Monthly avg.			.22	42.3	16.3	26.0	1.07	.0646	.0413	.0233	7.09	2.99	.0258	1.07	54,167
Dec. 12	dec.	v. sl.	.75	29.5	10.3	19.2	2.80	.1620	.1440	.0180	7.80	1.08	.0200	2.36	1,054,000
Dec. 26	dist.	64	. 65	26.6	9.4	17.2	8.60	.1120	.1060	.0060	5.78	.98	.0300	1.31	179,800
Monthly avg.		6.	.70	28.1	9.9	18.2	8.20	.1370	.1250	,0120	6.79	1.03	.0250	1.84	616,900
Yearly avg	1			40.4	12.9	27.5	2.85	.1033	.0888	.0195	8.02	2.10	.0309	1.57	267,267

Chemical and Bacteriological Examination of the water of the Moshassuck River, which receives the treated sewage of the City of Pawtucket, the sample being taken above the filter fields during the daytime.

	APPEARANCE.							Аммо	ONIA.			Nitro	OGEN.		
DATE OF								Alb	umino	id.				ed.	
Collection,	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Bacterla per c. c.
Jan. 10	gr.	d.	blue	45.4	19.6	25.8	.1800	.4100	.2360	.1740	4.28	.049	.0060	4.80	590,000
Feb. 21,	d.	64		49.4	19.8	29.6	.2400	.2480	.1400	.1080	4.02	.028	.0080	5.40	
Mar. 20		60		24.1	9.8	14.3	.1000	.0900	.0540	.0360	2.06	.024	.0030	2.22	4,480,000
April 18			.47	18.0	7.0	11.0	.0880	.0660	.0460	.0200	1.59	.026	.0030	1.88	750,000
May 21	dist.	dec.	br.	20.8	8.3	12.5	.1800	.3440	.1140	.2300	1.57	.039	.0075	1.92	4,955,000
June 18	gr.	d.	blue	38.9	13.3	25.6	.3600	.5920	.3540	.2380	4.18	.020	.0002	2.96	4,245,000
July 18,	dec.	hea.	66	47.6	18.6	29.0	.5600	.4120	.3040	.1080	4.36	.014	0	3.82	990,000
Aug. 14			.60	54.2	20.8	33.4	.5600	.6800	.4840	.1960	5.98	.017	0	4.00	2,455,000
Yearly avg	đ.	d,		37.3	14.7	22.6	.2835	.3553	.2165	.1388	3.51	.028	.0035	3.38	2,637,857

Chemical and Bacteriological Examination of the water of the Moshassuck River, which receives the treated sewage of the City of Pawtucket, the sample being taken above the filter fields during the nighttime.

							<u> </u>								
	APP	EARAN	CE.	on	EVA ATIO	PO-		Амм	ONIA.			Nitro	GEN.		
DATE OF COLLECTION.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution,	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c. c.
Feb. 21, 22	d.	sl.	.50	47.2	19.4	27.8	.2800	.2120	.1320	.0800	4.24	.046	.0070	4.56	••••••
Mar. 20, 21	sl.	d.	.45	29.0	12.3	16.7	.1000	.0760	.0660	.0100	2.35	.017	.0030	2.66	
April 18	d.	sl.	.45	16.3	6.3	10.0	.0480	.0920	.0480	.0440	1.42	.026	.0016	1.54	130,000
May 21	sl.	iron dec.	.55	20.9	8.3	12.6	.0200	.0640	.0600	.0040	1.51	.037	.0030	1.56	10,470,000
• Yearly avg			.49	28.4	11.6	16.8	.1120	.0860	.0515	.0345	2.38	.032	.0037	2.58	202,966,666

Chemical and Bacteriological Examination of the Water of the Moshassuck River, which receives the treated sewage of the City of Pawtucket, the sample being taken below the filter fields during the daytime.

						(Far	ts in l		<i>,</i>						
	Арі	PEARA	NCE.	on	ESID EVA ATIO	PO-		Амм	ONIA.			Nitr	OGEN.		
DATE OF								Alt	umino	oid.				ed.	°°
Collection.	Turbidity.	scdiment.	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Bacterin per c.
Feb. 21, 22	d.	đ.	blue	44.2	18.2	26.0	.3200	.1560	.1360	.0200	3.52	.014	.0150	5.32	
Mar. 20	6.	. 6	blue .50	23.9	10.7	13.2	.1100	.0900	.0760	.0140	2.04	.034	.0030	2.52	7,840,000
April 18			.46	18.5	8.1	10.4	.1000	.0760	.0580	.0150	1.30	.026	.0030	2.02	1,420,000
May 21, 22	dist.	dec.	.53	22.0	9.5	12.5	.2000	.1520	.1340	.0180	1.50	.018	.0000	1.94	2,485,000
June 18	gr.	d,	blue	40.5	15.8	24.7	.4000	.6040	.3800	.2240	4.02	.020	.0002	3.40	3,470,000
July 18	dec	hea.	4.6	40.5	15 7	21.8	.7000	.4160	.2840	.1320	3.66	.011	0	3.46	570,000
Aug. 14		**	.55	47.6	16.1	31.5	.5600	.2960	.2100	.0560	6.42	.012	0	3.36	4,030,000
Yearly avg	•••••			33.9	18.5	20.4	.3414	.2557	.1869	.0685	3.21	.019	.0039	8.15	3,302,500

Chemical and Bacteriological Examination of the water of the Moshassuck River which receives the treated sewage of the City of Pawtucket, the samples being taken below the filter fields during the nighttime.

	App	EARAN	CE.	on l	SIDU EVAT	0-		Амм	ONIA.			Nitro	GEN.		
DATE OF								Alb	umino	oid.				ed.	<b>ೆ</b>
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per o.
Feb. 21, 22	d.	sl.	.50	51.6	21.6	30.0	,2700	.1640	.1420	.0220	4.12	.046	.0070	4.88	1
Mar. 20, 21	sì.	d.	.45	31.7	13.8	17.9	.2400	.0880	.0620	.0260	2.49	.025	.0034	2.92	557,880,000
April 18	d.	sl.	.45	16.9	6.6	10.3	. 1020	.0620	.0460	.0160	1.31	.036	.0020	1.60	120,000
May 21, 22	sl.	dee.	.55	22.3	9.1	13.2	.2000	.0760	.0700	.0060	1.61	.031	.0050	1.68	15,280,000
Yearly avg		••••	.49	30.6	12.8	17.8	.2030	.0975	.0800	.0175	2.88	035	.0044	2.77	190,910,000

Chemical and Bacteriological Examination of the Sewage of the City of Pawtucket, giving the Average for the Years 1900–1901, Grouped for Comparison of the Quality of the Sewage at Different Points of the system.

	APP	EARA	NCE.	on	EVA ATIO	PO-		Амм	ONIA.			Nitr	OGEN.		
	ity.	nt.			Loss on Ignition,			Alb	tion.	Suspension.	.6	Nitrates.	ites.	Oxygen Consumed.	i per c. c.
	Turbidity.	Sediment.	Color.	Total.	Loss or	Fixed.	Free.	Total.	In Solution.	In Susp	Chlorine.	As Nitn	As Nitrites.	Oxygen	Bacterla per
Sewage, 1900				103.9	60.1	43.8	7.77	1.45	.74	.71	10.55			16.39	10,434,800
Sewage, 1901			,	93.1	52.5	40.6	8.38	1.27	.72	.55	11.76			13.27	19,586,268
Septic, 1900			,	62.3	30.7	31.6	7.31	.79	.57	.22	8.98			7.89	70,388,414
Septic, 1901				61.7	30.4	31.3	6.51	.81	.64	.17	8.66			8.66	48,032,760
Beds 10-11, 1900			.56	42.5	17.7	24.8	2.18	.1616	.1100	.0516	7.33	2.700	.0262	1.90	351,120
Beds 10-11, 1901	si.	sl.		41.2	12.9	28.3	3.51	. 1289	. 1063	.0226	7.91	1.164	.0250	2.13	375,743
Beds 12-13, 1900				45.1	18.1	27.0	.98	.0665	.0443	.0222	6.98	3.630	.0137	.95	1,463,967
Beds 12-13, 1901	sl.	sî.		46.0	19.3	26.7	2.65	. 1058	.0978	.0080	7.70	2.940	.0292	1.54	471,650
Bed 14, 1900	gr.	dec.		49.5	17.0	32.5	4.23	.4080	.2863	.1217	9.00	.052	.0093	3.83	4,858,731
Bed 14, 1901		si.					3.26	. 3630	.2790	.0840	8.45	.140	.0026	8.75	4,390,250
Bed 15, 1900				47.2	14.7	82.5	3.66	.3770	.2770	. 1000	8.50	. 262	.0054	3.10	3,540,431
Bed 15, 1901							2.72	. 2996	.2311	.0685	8.09	1.001	.0250	3.03	9,890,429

Chemical and Bacteriological Examination of the Sewage of the City of Pawtucket, giving the Average for the years 1900–1901, Grouped for Comparison of the Quality of the Sewage at Different Points of the system.—Concluded.

	APP	EARAI	NCE.	ON	EVA ATIO	PO-		Аммо	ONIA.			Niti	ogen.		
	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c. c.
Bed 16, 1901 Bed 16, 1901	d.	sl. v. sl.							. 1753						323,033 1,396 <b>,</b> 294
Bed 17, 1900 Bed 17, 1901	d.	sl.							. 1820		ļ		.0437		547,360 1,716,038
Effluent at river,			.57	50.2	17.9	32.3	1.71	.0793	.0615	.0178	9.38	2.77	.0417	1.05	183,213
Effluent at river, 1901				40.4	12.9	27.5	2.85	. 1033	.0838	.0195	8.02	2.10	.0309	1.57	267,267
fields, day, 1900 River above filter fields, day, 1901					14.7		.2835	.3553	.2165	.1388	3.51	.028	.0035		2,687,857
River above filter fields, night, 1900.						,									
River above filter fields, night, 1901.			.49	28.4	11.6	16.8	. 1120	.0860	.0515	.0345	2.38	.032	.0037	2.58	202,966,666
fields, day, 1900 River below filter fields, day, 1901				83.9	13.5	20,4	.3114	.2557	.1869	.0688	3.21	.019	,0039	8.15	8,302,500
River below filter fields, night, 1900.							,								
River below filter fields, night, 1901.	sl.		.49	30.6	12.8	17.8	.2030	.0975	.0800	.0175	2.38	.035	.0014	2.77	190,910,000

Chemical and Bacteriological Examination of the Sewage of the City of Central Falls, the sample being taken from the receiving tank.

	App	EARAN	CE,	ON	EVA RATIO	PO-	1	Аммок	14.			Nitre	OGEN.		
DATE OF			,					Albı	minoi	d.				g.	
Collection.					Loss on Ignition.				i.	sion.		ŝ	sc.	Oxygen Consumed.	er c. e.
	Turbidity.	Sediment.	ı.	-:	on 1g	d.		-i	Solution.	In Suspension	Chlorine.	As Nitrites.	As Nitrates.	zen C	Bacteria per c.
	Turl	Sedi	Color.	Total.	Loss	Fixed.	Free.	Total.	E	In S	Chlo	As N	ASN	Oxy	Bact
Jan. 2				169.2	110.0	59.2	12.20	2.73	1.99	.74	20.22			27.00	1,470,000
Jan. 15				120.4	71.2	49.2	13.60	2.35	1.56	.79	18.42			20.20	3,865,000
Jan. 29	A			124.6	77.6	47.0	11.80	1.84	1.20	.64	11.23			19.70	8,715,000
Monthly avg.				138.1	86.3	51.8	12.58	2.81	1.58	.73	16.62			22.80	4,683,833
Feb. 12				162.4	104.8	57.6	14.20	2.60	1.46	1.14	13.01			25.40	9,110,000
Feb. 26				105.6	60.2	45.4	5.20	1.24	.71	.53	7.98			14.90	2,465,000
Monthly avg.				134.0	82.5	51.5	9.70	1.92	1.09	.83	10.50			20.15	5,787,500
Mar. 12				99.8	61.0	38.8	4.60	1.39	1.10	.29	12.38			13.90	8,295,000
April 2				171.6	113.8	57.8	4.40	1.98	1.00	.95	9.76			28.50	9,320,000
April 17				283.6	197.4	86.2	5.60	2.96	2.06	.90	15.28			46.80	12,890,000
April 30				211.2	142.4	68.8	20.00	3.74	1.72	2.02	24.84			27.30	30,000,000
Monthly avg.				222.1	151.2	70.9	10.00	2.89	1.59	1.30	16.63			34.20	17,403,833
May 14				134.4	73.4	61.0	10.00	1.70	1.20	.50	18.38			19.00	255,440,000
June 4				105.0	44.4	55.6	8.00	1.39	.86	.58	13.50			18.40	11,655,000
June 18				199.4	60.2	139.2	12.20	1.76	.94	.82	73.40			12.90	12,335,000
Monthly avg.				152.2	54.8	97.4	10.10	1.58	.90	.68	18.45			15.65	11,995,000

Chemical and Bacteriological Examination of the Sewage of the City of Central Falls, the sample being taken from the receiving tank.—Concluded.

				1				1 100,00						-	
	APP	EARAN	CE.	ON	ESIDU EVAI ATION	PO-		Аммо	ONIA.			Nitr	OGEN.		
DATE OF					j.			Alb	umino	oid.				ed.	ů
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c. c
July 2				101.0	52.2	48.8	11.60	1.24	.95	.29	16.98			11.60	22,320,000
July 16				80.8	45.8	35.0	13.00	1.29	1.06	.23					22,940,000
July 30							11.40	1.27	.84	.43					25,815,000
Monthly avg.				92.7	51.5	41.2	12.00	1.27	.95	.32	13.65			12.60	23,691,666
Aug. 13				120.6	66.0	54.6	18.00	2.09	.99	1.10	13.38			19.90	18,910,000
Aug. 27				109.0	62.4	46.6	17.60	1.71	1.25	.46	15.78			15.20	17,930,000
Monthly avg.				114.8	64.2	50.6	17.80	1.90	1.12	.78	14.58			17.55	18,420,000
Sept. 9				69.0	37.0	32.0	7.00	.96	.42	.54	11.12			8.40	5,125,000
Oct. 8				132.4	90.4	42.0	5.60	1.08	.80	.28	12.16			13.70	9,965,000
Oct. 22				116.2	72.2	44.0	15.80	1.81	1.21	.60	18.10			15.90	13,020,000
Monthly avg.				121.3	81.3	43.0	10.70	1.45	1.01	.44	12.63			14.80	11,492,500
Nov. 11				211.0	134.4	76.6	20.00	3.83	1.78	2.05	17.78			27.30	10,410,000
Nov. 25							9.80	1.53	1.31	.22	15.78			20.30	5,260,000
Monthly avg.							14.90	2.68	1.55	1.13	16.78			23.80	7,835,000
Yearly avg				139.2	82.8	56.4	11.44	1.93	1.20	.73	17.20			19.66	23,284,318

Chemical and Bacteriological Examination of the Sewage of the City of Central Falls, the sample being taken from the septic tank.

				Residue on Evapo-											
	APP	EARAN	CE.		EVA AT10:		A	MMO	NIA.			NITRO	OGEN.		
DATE OF					نہ			Albı	ımin	oid.				ed.	
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution,	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Bicteria per c. c.
Jan. 2				75.8	27.4	48.4	10.80	.73	.48	.25	11.36			7.20	780,000
Jan. 15				73.8	30.8	43.0	9.00	.88	.71	.17	14.96			9.20	2,690,000
Jan. 29				78.6	38.2	40.4	11.00	.94	.77	.17	14.38			7.70	13,640,000
Monthly avg.	*****			76.0	32.1	43.9	10.27	.85	.65	.20	13.57			8.03	5,703,333
Feb. 12				76.6	35.8	40.8	11.20	,95	.82	.13	13.64			10.00	1.355,000
Feb. 26				68.2	33.0	35.2	7.20	.78	.59	.19	10.36			9.70	2.180,000
Monthly avg.			* * * * *	72.4	34.4	38.0	9.20	.87	.71	.16	12.00			9.85	1,767,500
Mar. 12				81.2	34.4	16.8	9.20	.74	.47	.27	15.18			8,40	2,555,000
April 2				78.8	36.4	43.4	9.00	.80	.57	. 23	13.45			9.20	2,650,000
April 17				86.8	37.4	49.4	9.00	.76	.50	.26	19.38			8.10	5,100,000
April 30				82.8	39.4	13.4	9.00	.72	.60	.12	15.54			8.20	2,460,000
Monthly avg.				s2.8	37.7	15.1	9.00	.76	.56	.20	16.12			8.50	3,403,833
May 14				75.2	29.0	16 2	9.00	.56	.41	.15	19.28			6.00	950,000

Chemical and Bacteriological Examination of the Sewage of the City of Central Falls, the sample being taken from the septic tank.—Concluded.

						-				1				Ī	
	APP	EARAN	CE,	ON	EVAL TION	Р0-	A	ммо	NIA.			Nitre	OGEN.		
DATE OF					-			Albu	min	oid.				ıed.	ల
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites,	Oxygen Consumed	Bacteria per c.
June 4				73.8	36.8	37.0	9.00	.74	.45	.29	19.45			8.60	15,290,000
June 18				82.4	27.8	54.6	8.80	.60	.43	.17	20.76			6.30	530,000
Monthly avg.				78.1	32.3	45.8	8.90	.67	.44	.23	20.11			7.45	7,910,000
July 2				127.0	36.6	90.4	8.60	.83	.43	.40	34.38			6.80	2,515,000
July 16				95.2	32.8	62.4	9.00	.91	. 35	.56	16.60			8.30	1,470,000
July 30				103.6	28.6	75.0	10.60	.52	.42	.10	27.70			6.80	2,570,000
Monthly avg.		••••		108.6	32.7	75.9	9.40	.75	.40	.35	26.23			7.30	2,185,000
Aug. 13				99.6	25.8	73.8	10.20	.58	.34	.24	24.40	 		10.60	1,190,000
Aug. 27				117.6	46.6	71.0	11.00	.80	.38	.42	24.42			8.90	1,410,000
Monthly avg.		,		108.6	36.2	72.4	10.60	.69	.36	.83	24.41			9.75	1,300,000
Sept. 9				92.0	28.4	63.6	10.20	.57	.47	.10	27.44			5.90	650,000
Oct. 22				102.6	53.8	48.8	9.80	1.05	.92	.13	16.40			12.70	9,450,000
Yearly avg				88.0	34.7	53.3	9.50	.76	.58	.23	18.85			8.85	3,654,474

Chemical and Bacteriological Examination of the Sewage Effluent of the City of Central Falls, the sample being taken from beds, 1, 2, and 3.

(Farts in 100,000.)															
	Арр	EARAN	CE.	ON	EVA ATIO	LO-		Амм	ONIA.			Nitro	ogan.		
DATE OF					_			Alb	umino	oid.				ed.	ย้
Collection.	Turbidity.	Sediment,	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine,	As Nitrates.	As Mtrites.	Oxygen Consumed.	Bacteria per c. e
Jan. 15	d.	v. sl.	.80	48.2	12.0	36.2	5.92	.3640	.3440	.0200	11.84	11	.0050	3.64	1,116,000
Feb. 26		d.	.80	52.6	15.4	37.2	7.04	.3160	.2160	.1000	12.82	.18	.0120	3.81	5,843,500
Mar. 12	gr.	sl.	.86	55.9	17.2	38.7	8.00	.3760	.3400	.0360	6.62	.09	.0030	4.30	490,000
April 2	dec.	v. sl.	.85	47.0	9.4	37.6	4.48	.1520	.1200	.0320	14.94	1.20	.0320	1.56	337,000
Aprll 30	v. sl.		.36	62.2	14.8	47.4	3.76	.1040	.1040	0	15.58	3.68	.0200	1.04	260,600
Monthly avg.			.61	54.6	12.1	42.5	4.12	.1280	.1120	.0160	15.26	2.44	. 0260	1.30	298,500
May 14	el.	v. sl.	.36	72.4	22.7	19.7	3.20	.0720	.0640	.0080	15.84	4.38	.0160	.82	6,000
June 4	sl.	sl.	.26	79.8	33.2	46.6	1.72	.0540	.0460	.0080	16.22	4.84	.0040	1.94	8,500
July 2	v. sl.	b.4	.20	86.2	28.9	62.3	2.21	.0720	.0580	.0140	21.28	4.13	.0060	1.74	4,000
Sept. 9	64	v. sl.	.19	105.7	21.4	84.3	1.96	.0540	.0510	0	80.04	5.28	,0040	.87	750

Chemical and Bacteriological Examination of the Sewage Effluent of the City of Central Falls, the sample being taken from beds 1, 2, and 3.—Concluded.

	АРР	EARAN	on	ESIDU EVA	PO-		Амм	ONIA.			Nitro	OGEN.			
DATE OF Collection.	Turbidity.	Sediment,	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c. c.
Oct. 8	0	sl.	.16	79.6	25.3	54.3	1.40	.0260	.0260	.0000	20.42	4.73	.0150	.61	500
Oct. 22	sl.	dec.	.26	60.0	15.2	44.8	1.84	.0620	.0360	.0260	17.58	2.97	.0170	.92	
Monthly avg.			-21	69.8	20.3	49.5	1.62	.0440	.0310	.0130	19.00	3.85	.0160	.77	
Nov. 11	dist.	sl.	.25	69.8	18.5	56.3	1.18	.0860	.0780	.0080	21.78	2.69	.0440	1.30	No growth.
Nov. 25	dec.	v. sl.	.50				3.20	.1640	.1600	.0040	18.22	1.94	.0400	3.12	6,600
Monthly avg.			.38				2.19	.1250	.1190	.0060	20.00	2.32	.0420	2.21	
Dec. 16	dec.	dec.	br.	71.3	21.7	49.6	6.40	.4840	.4000	.0840	18.40	.23	.0600	5.04	1,815,000
Yearly avg		*****	•••	68.5	18.9	49.6	8.74	.1704	.1461	.0248	16.19	2.60	.0199	2.20	823,996

Chemical and Bacteriological Examination of the Sewage Effluent of the City of Central Falls, the sample being taken from beds 4 and 5.

	RESIDUE														
	AP	PEARA;	NCE.	ON.	SIDU EVAI	-09		Амм	ONIA,			Nure	OGEN.		
DATE OF								Alb	umino	oid.				ed.	
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspens on.	Chlorine,	As Nitrates.	As Nitrites,	Oxygen Consumed.	Bacteria per c. c.
Jan. 2	d.	v. sl.	1.32	59.6	14.3	45.8	5.20	.2840	.2040	.0800	18.76	.79	.0500	3.30	16,500
Jan. 29		sl.	.88	56.5	20.5	36.0	6.40	.4360	.3920	.0440	12.10	1.19	.0200	3.84	2,788,000
Monthly avg.		•••••		58.1	17.4	40.7	5.80	.3600	.2980	.0620	15.43	.99	.0350	3.57	1,402,250
June 11	sl.	dist.	.70	85.2	21.5	63.7	2.76	.1900	.1440	.0460	27.78	3.42	.0960	1.92	69,000
Aug. 13	<b>v</b> . sl.	hyd. dec.	.39	115.0	34.4	80.6	2.16	.0920	.0720	.0200	29.58	7.03	.0140	1.06	1,565,500
Nov. 25	deo.	sl.	br.				5.68	.3400	.2960	.0440	13.28	.84	.0360	3.00	76,700
Dec. 16	dec.	dec.	br.	54.3	12.1	42.2	6.82	.2840	.2680	.0160	16.38	.48	.0600	3.90	227,500
Yearly avg				74.1	20.6	58.5	4.75	.2710	.2293	.0417	19.65	2.29	.0460	2.84	790,583

Chemical and Bacteriological Examination of the Sewage Expluent of the City of Central Falls, the sample being taken from beds 6 and 7.

•	Арр	BARAN	CE.	ON	ESIDI EVA	P0-		Ама	ionia.			Nitro	OGHN.		
DATE OF COLLECTION.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension .	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per o. c.
Jan. 2	d.	v. sl.	1.10	70.0	21.2	48.8	7.60	.3160	.2700	.0460	23.64	.91	.1500	3.90	31,700
Jan. 29		sl.	.90	51.9	15.8	36.1	7.20	.3720	.3520	.0200	12.78	.19	.0340	3.44	7,847,000
Monthly avg.	6.6		1.00	61.0	18.5	42.5	7.40	.3440	.3110	.0330	18.21	.55	.0920	3.67	3,689,350
April 17	d.	v. sl.	.65	55.3	17.1	38.2	2.80	.1360	.1160	.0200	15.12	2.08	.3000	1.96	968,500
April 80	6.6	sl.	.36	66.1	21.8	44.3	.60	.1840	.1600	.0240	8.32	4.63	.2100	2.06	740,000
Monthly avg.	"		.51	60.7	19.5	41.2	1.70	.1600	.1380	.0220	11.72	3.36	.2550	2.01	854,250
July 16	dist.	dist.	.39	107.3	44.8	63.0	2.16	.0920	.0880	.0040	18.38	7.04	.0024	2.28	10,000
July 30	sl.	dec.	.37	96.6	32.6	64.0	3.60	.1240	.0840	.0400	28.62	4.47	.0180	1.26	3,561,000
Monthly avg.			.38	102.0	38.5	63.5	2.88	.1080	.0860	.0220	23.50	5.76	.0102	1.75	8,571,000
Nov. 25	dec.	sl.	.90				1.80	.2520	.2320	.0200	13.96	1.24	.0840	2.26	58,300
Dec. 16	dec.	v. sl.	.80	55.7	13.1	12.6	5.20	.2040	.1760	.0280	15.84	1.92	.0640	2.68	182,500
Yearly avg			.68	71.8	23.7	48.1	4.25	.2100	. 1848	.0252	17.08	2.81	.1078	2.47	2,073,544

Chemical and Bacteriological Examination of the Water taken from the stream into which the Effluent of the Central Falls filter beds flow, the sample being taken at a point 250 feet below the city line and above the outlet of the effluent pipe.

								, 111 10	-,,						
	AP	PEARA	NCE.	on	ESID EVA ATIO	PO-		Амм	ONIA.			Nitre	OGEN.		
DATE OF	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitritos.	Oxygen Consumed.	Baeteria per c. e.
Jan. 15	v. sl.	v. sl.	iron 1.25	24.5	5.8	18.7	.6400	.0340	.0280	.0060	4.76	.53	.0400	.62	52,300
Feb. 12	sl.	d.	. 63	24.6	5.4	19.2	1.4800	.0620	.0500	.0120	5.28	.39	.0600	.91	846,300
Feb. 26		v. sl.	.90	24.6	6.5	18.1	1.2000	.0400	.0360	.0040	4.78	.38	.0480	.72	10,000
Monthly avg.			.77	24.6	6.0	18.6	1.3400	.0510	.0430	.0080	5.03	.39	.0540	.82	428,150
Mar. 12	sī.	dec.	.36	13.2	3.9	9.3	.0700	.0400	.0240	.0160	.89	.10	.0014	.55	40,000
April 2	sl.	sl.	iron 1.05	17.1	4.5	12.6	.5000	.0360	.0300	.0060	3.82	.48	.0200	.68	284,000
April 17	d.		iron .90	24.1	8.3	15.8	.3000	.0940	.0820	.0120	3.08	. 69	.0100	1.11	37,400
Monthly avg.			iron •98	20.6	6.4	14.2	.4000	.0650	.0560	.0090	3.45	.59	.0150	.90	160,700
May 14	sl.	dec.	.90	24.0	8.2	15.8	.2000	.0340	.0280	.0060	3.22	.78	.0060	.56	126,500
June 4	sl.	deo.	.61	25.7	10.5	15.2	.3400	.0400	.0360	.0040	3.20	.78	.0080	1.05	3,782,000
June 18	44		.51	41.1	15.4	25.7	. 6000	.1500	.1100	.0400	8.18	1,17	.0300	1.86	
Monthly avg.	4.6	66	.58	33.4	13.0	30.4	.4700	.0950	.0780	.0220	5.69	.98	.0190	1.46	

Chemical and Bacteriological Examination of Water taken from the stream into which the Effluent of the Central Falls filter beds flow, the sample being taken from the stream below the city line and above the outlet of the effluent pipe.

-	Арр	APPEARANCE.				UE PO-		Амм	ONIA.			Nitre	OGEN.		
DATE OF COLLECTION.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c. c.
July 2	v. sl.	sl.	.16	30.7	8.2	22.5	.4100	.0400	.0380	.0020	5.04	1.04	.0150	.46	2,500
July 16	66	dist.	.50	33.1	10.8	22.3	.3400	.0260	.0220	.0040	5.42	1.09	.0110	.44	10,000
July 30	sl.	sl.	.50	27.0	9.1	17.9	.1900	.0100	.0080	.0020	3.80	.87	.0100	.27	11,250
Monthly avg.			.39	30.3	9.4	20.9	.9133	. 0253	.0227	.0026	4.75	1.00	.0120	.39	7,917
Aug. 13	trace	v. sl.	.30	32.1	10.0	22.1	.3000	.0200	.0160	.0040	6.22	1.10	.0170	.20	572,510
Sept. 9	sl.	dist.	.21	31.7	8.8	22.9	.8000	.0560	.0420	.0140	2.62	.80	.0280	.90	2,282,000
Oct. 8	v. sl.	sl.	.26	25.4	4.0	21.4	.2000	.0160	.0140	.0020	4.04	.72	.0140	.25	50,500
Oct. 22	dist.	iron dec.	.59	28.0	8.3	19.7	.4000	.0180	.0160	.0020	5.62	.80	.0200	.28	18,000
Monthly avg.			.43	26.7	6.2	20.5	.8000	.0170	.0150	.0020	4.83	.76	.0170	.27	34,250
Nov. 11	v. si.	d.	.16	24.7	7.2	17.5	.2000	.0100	.0100	.0000	3.84	.88	.0040	.17	1,250
Yearly avg		*****	.58	26.6	8.0	18.6	.4806	.0427	.0347	.0080	4.84	.74	.0202	.61	475,088

### CENTRAL FALLS SEWAGE.

Chemical and Bacteriological Examination of the Sewage of the City of Central Falls, giving the Average for the Years 1900–1901, Grouped for Comparison of the Quality of the Sewage at Different Points of the System.

		ON	ESID EVA ATIO	Po-		Аым	ONIA.			NITE	OGEN.		
						All	oumine	oid.				red.	ં
	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c.
Sewage, 1900		125.8	69.9	55.9	18.59	1.88	1.10	.78	19.08			17.30	48,215,313
Sewage, 1901		139.2	82.8	56.4	11.44	1.93	1.20	.73	17.20			19.66	23,284,318
Septic, 1900		92.5	32.5	60.0	9.18	.62	.47	.15	22.36			7.21	24,211,938
Septio, 1901		88.0	34.7	53.3	9.56	.76	.58	.23	18.85			8.35	3,654,474
Beds 1-2-8, 1900		72.5	15.0	57.5	3.25	.1474	.1040	.0434	19.57	2.08	.0439	1.89	56,093
Beds 1-2-8, 1901		68.5	18.9	49.6	3.74	.1704	.1461	.0243	16.19	2.60	.0199	2.20	823,996
Beds 4-5, 1900		71.0	15.7	55.3	2.36	.2026	.1843	.0683	20.51	2.61	.0760	2.09	195,087
Beds 4-5, 1901		74.1	20.6	53.5	4.75	.2710	.2293	.0417	19.65	2.29	.0460	2.84	790,593
Beds 6-7, 1900	.62	75.6	22.6	53.0	3.19	.1640	.1810	.0330	18.64	3.84	.0895	2.15	304,213
Beds 6-7, 1901	.68	71.8	28.7	48.1	4.25	.2100	.1848	.0252	17.08	2.81	.1078	2.47	2,078,544
Stream, 1900		26.7	5.9	20.8	. 6438	.0387	.0258	.0129	5.17	.97	.0258	.68	51,760
Stream, 1901	.58	26.6	8.0	18.6	.4806	.0427	.0347	.0080	4.94	.74	.0202	.61	475,088

Chemical and Bacteriological Examination of the Sewage of the City of Woonsocket, the sample being taken from the receiving tank.

RESIDUE															
	Арр	EARAN	CE.	ON	ESID EVA ATIO	.Р0-		Амм	ONIA.			NITE	ogen.		
DATE OF					on.			Alt	umino					med.	ં
Collection.	Turbidity.	Sediment,	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c. c.
		-,													
Jan. 9				63.8	38.4	25.4	3.60	.84	.49	.35	5.02	,		10.60	2,610,000
Jan. 22			• • • •	79.8	52.2	27.6	3.00	1.06	.46	.60	8.48			14.30	2,660,000
Monthly avg.				71.8	45.3	26.5	8.30	.95	.48	.47	6.75			12.45	2,635,000
Feb. 6				74.6	46.4	28.2	5.50	.96	.44	.59	7.08	••••		12.00	3,860,000
Mar. 5				121.6	56.8	64.8	3.20	1.02	.72	.30	24.56			14.70	3,500,000
Mar. 20				35.6	12.2	23.4	1.75	.35	.26	.09	5.08			4.70	2,900,000
Monthly avg.				78.6	34.5	44.1	2.48	. 69	.49	.20	14.81			9.70	3,200,000
April 15		••••	••••	87.4	28.0	9.4	1.24	.8760	.2080	.1680	4.42			4.12	2,380,000
May 6				62.2	24.6	37.6	1.60	. 52	.28	.24	18.96			5.70	4,600,000
May 21				81.2	12.8	18.4	.84	.18	.08	.10	3.71			2.40	
Monthly avg.				46.7	18.7	28.0	1.22	. 35	.18	.17	8.84		••••	4.05	

Chemical and Bacteriological Examination of the Sewage of the City of Woonsocket, the sample being taken from the receiving tank.—Continued.

	(1 at to 10 100,000.)														
	Appi	EARANC	Œ.	ON	SIDU EVAI	-0-		Амм	ONIA.			Nitro	GEN.		
DATE OF					n.			Alb	umino	id.				med.	ಲೆ
Collection.	у.	ئد			gnitio				on.	nsion.		tes.	es.	Consumed.	per e.
	Turbidity.	Sediment,	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension	Chlorine.	As Nitrates.	As Nitrites.	Oxygen	Bacteria per c.c.
June 5				35.8	10.6	25.2	1.72	.3320	.1280	.2040	7.18			2.40	3,700,000
June 19				53.0	17.0	36.0	1.12	.3440	.2280	.1160	11.18			4.80	1,535,000
Monthly avg.				44.4	13.8	30.6	1.42	.3380	.1780	.1600	9.18			3.60	2,618,000
July 2				65.6	18.4	47.2	2.00	.39	.20	. 19	16.56			4,40	7,700,000
July 15				44.2	14.6	29.6	1.68	.28	.19	.09	9.62			2.70	17,480,000
Monthly avg.				54.9	16.5	38.4	1.84	.84	.20	.14	13.09			3.55	12,565,000
Aug. 1				148.8	78.6	70.2	3.50	2.40	.53	1.87	8.84			15.70	14,884,000
Aug. 14				70.8	39.6	31.2	2.80	.77	.39	.38	9.14			10.60	9,150,000
Aug. 26			ļ	69.0	38.0	31.0	5.00	.99	.47	.52	9.16			8.50	9.045,000
Monthly avg.				96.2	52.1	44.1	3.77	1.39	.46	.93	9.05			11.60	10,826,000
Sept. 10				81.6	47.4	34.2	4.50	.74	.38	.36	9.00	)		10.10	5,025,000

Chemical and Bacteriological Examination of the Sewage of the City of Woonsocket, the sample being taken from the receiving tank.—Concluded.

	APP	EARAN	CE.	Ev	IDUI APOI	RA-		Аммо	ONIA.			Nitr	OGEN.		
DATE OF								Alt	umino	oid.				ed.	ċ
Collection.	Turbidity.	sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites	Oxygen Consumed.	Bacteria per c. c
Oct. 2				62.8	35.4	27.4	3.60	.59	.34	.25	7.76			6.00	19,040,000
Oct. 14				97.0	50.2	46.8	4.00	1.49	.52	.97	5.58			11.30	14,290,000
Oct. 28				98.6	54.8	43.8	4.50	1.40	.64	.76	6.62			12.10	10,560,000
Monthly avg.				86.1	46.8	39.3	4.03	1.16	.50	.66	6.65	:		9.80	14,630,000
Nov. 18				110.8	72.0	38.8	3.60	1.10	52	.58	6.66			13.80	650,000
Nov. 26							4.50	.81	.58	.23	5.82			9.60	2,010,000
Monthly avg.			• • • •				4.05	. 96	.55	.41	6.24			11.70	1,330,000
Dec. 11	• • • • • •	••••		98.8	56.8	42.0	3.40	1.09	.50	.59	4.16			13.60	5,899,900
Yearly avg				78.5	88.3	85.2	3.05	.820	.389	.431	9.05			8.90	6,806,095

Chemical and Bacteriological Examination of the Sewage Effluent of the City of Woonsocket, the sample being taken from bed 1, at the purification plant of that city.

							(1 41 65								
	Арр	EARAN	CE.	ON	ESID EVA ATIO	Р0-		Амм	IONIA.			Nitro	OGEN.		
DATE OF COLLECTION,	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates,	As Nitrites.	Oxygen Consumed.	Bacteria per c. c.
Jan. 9	sl.	v. sl.	.14	60.3	27.8	32.5	.0700	.0500	.0480	.0020	6.08	5.09	.1000	.68	248,000
Jan. 22	d.	٠,	.32	31.0	8.9	22.1	.8000	.0940	.0700	.0240	5.62	.58	.0840	1.48	221,000
Monthly avg.	•••••	**	.23	45.7	18.4	27.3	.4350	.0720	.0590	.0130	5.85	2.84	.0920	1.08	234,500
Feb. 6	sl.	v. sl.	.26	43.9	17.6	26.3	.3800	.0780	.0680	.0100	5.06	1.96	.2100	1.14	178,600
June 19	sl.	trace	.15	62.4	17.2	45.2	.1000	.0560	.0560	.0000	8.12	4.81	.0300	.56	32,250
Nov. 13	sl.	v. sl.	.06	68.2	30.5	37.7	.0800	.0440	.0440	.0000	5.58	5.71	.0080	.52	43.500
Yearly avg	sl.	v. sl.	.19	53.2	20.4	32.8	.2860	.0644	.0572	.0072	6.09	3.63	.0864	.88	148,670

Chemical and Bacteriological Examination of the Sewage Effluent of the City of Woonsocket, the sample being taken from bed 2, at the purification plant of that city.

	]			R	ESID	UE									
	API	PEARAN	NCE.	1	EVA			Аммо	ONIA.			Nitro	OGEN.		
DATE OF								Alt	umino	id.				ed.	
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites,	Oxygen Consumed.	Bacteria per c. c.
April 15	0	trace	.05	23.5	9.0	14.5	.0600	.0160	.0160	.0000	3.24	1.26	.0100	.23	64,500
May 21	0	sl.	.09	24.3	9.8	14.5	.0116	.0308	.0308	.0000	3.20	.79	.0006	.27	
June 5	0	0	.06	36.0	14.1	21.9	.0126	.0246	.0246	.0000	6.22	1.35	.0200	. 27	252,000
July 15	v. sl.	v. sl.	.10	61.8	17.6	44.2	.0430	.0362	.0362	.0000	10.04	3.96	.0010	.41	55,000
Aug. 1	v. sl.	0	.10	55.0	18.5	36.5	.0230	.0368	. 0368	.0000	11.02	2.62	.0006	.44	195,750
Nov. 26	0	0	.05				.0780	.0180	.0180	.0000	4.66	3.12	.0500	.38	31,000
Yearly avg	v. sl.	v. sl.	.08	40.1	13.8	26.3	.0380	.0271	.0271	.0000	6.40	2.18	.0187	.33	119,650

Chemical and Bacteriological Examination of the sewage Effluent of the City of Woonsocket, the sample being taken from bed 3, at the purification plant of that city.

	Арр	EARAN	CE.	ON	ESID EVA ATIO	P0-		Аммо	ONIA.			Nitro	OGEN.		
DATE OF					n.			Alb	umino	oid.				ned.	ပိ
Collection.	Turbidity.	Sediment,	Color.	Total	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c. c.
Mar. 20	0	v. sl.	.10	43.3	28.0	15.3	.5500	.0460	.0160	.0000	3.78	1.87	.0720	.58	5,921,000
Sept. 10	dec.	v. sl.	.31	40.8	9.6	31.2	.7000	.0820	.08:20	.0000	9.86	.53	.0030	1.27	263,750
Oct. 2	v. sl.	v. sl.	.18	44.2	15.3	28.9	.2000	.0320	.0320	,0000	5.36	3.34	.0220	.56	48,500
Oct. 14•	sl.		.25	35.8	12.3	23.5	.4500	.0700	.0700	.0000	5.84	1.37	.0040	.85	1,250,000
Monthly avg.			.22	40.0	13.8	26.2	.3250	.0510	.0510	.0000	5.60	2.36	.0130	.71	649,250
Yearly avg	sl.	v. sl.	.21	41.0	16.3	24.7	.4750	.0575	.0575	.0000	6.21	1.78	.0253	.82	1,870,813

Chemical and Bacteriological Examination of the Sewage Effluent of the City of Woonsocket, the sample being taken from bed 4, at the purification plant of that city.

	APP	EARAN	CE.	ON	ESID EVA ATIO	.РО-		Амм	ONIA.			Nitr	OGEN.		
DATE OF								All	oumino	oid.				ed.	ပ်
Collection.	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Bacteria per c.
Mar. 5	sl.	v. sl.	.16	29.1	8.2	20.9	1.0000	.0700	.0660	.0040	4.52	.83	.1600	.93	1,881,700
May 6	0	0	.06	29.2	10.0	19.2	.0252	. 0234	.0234	.0000	4.82	.97	.0030	.23	6,000
Aug. 14	dist.	v. sl.	.26	45.0	12.0	33.0	.2100	.0680	.0680	.0000	10.02	1.40	.0120	.90	. *
Aug. 26	v. sl.		.25	25.1	4.1	21.0	.4000	.0620	.0620	.0000	8.72	.24	.0100	.80	300,750
Monthly avg.			.26	35.1	8.1	27.0	.8050	.0650	.0650	.0000	9.37	.82	.0110	.85	•••••
Dec. 11	sl.	trace	.25	25.3	6.8	18.5	.3100	.0600	.0600	.0000	4.58	.99	.0680	.69	198,400
Yearly avg	sl.	v. sl.	.20	30.7	8.2	22.5	.3890	.0567	.0559	,0008	6.55	89	.0506	.71	596,718

<sup>\*</sup> Too numerous to count.

Chemical and Bacteriological Examination of the Sewage System of the City of Woonsocket, giving the Averages for the Years 1900–1901, Grouped for Comparison of the Quality of the Sewage at Different Points of the system.

	RESIDUE														
	APF	PEARA	NCE.	ON	ESID EVA	PO-		Амм	ONIA.			NITE	ROGEN.		
					-			Alb	umin	oid.				ned.	ં
	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition,	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chiorine.	As Nitrates.	As Nitrites.	Oxygen Consumed	Bacteria per e.
Sewage, 1900				70.5	37.9	32.6	3.10	.79	.37	.42	7.32			8.83	7,558,194
Sewage, 1901				78.5	38.3	35.2	3.05	.820	.389	.431	9.05	*****		8.90	6,806,095
Bed 1, 1900 Bed 1, 1901	dec.	v. sl.											.0895	.81	240,050 148,670
Bed 2, 1900	v. sl.	v. sl.	.12	50.0	21.2	28.8	.0860	-0233	.0220	.0013	5.32	3.12	.0473	.60	29,966
Bed 2, 1901			.08	40.1	13.8	26.3	.0380	.0271	.0271	.0000	6.40	2.18	.0137	. 33	119,650
Bed 3, 1900	sl.	sl.	.29	30.6	10.7	19.9	.3200	.0640	.0553	.0087	4.67	1.27	.0480	.89	362,500
Bed 3, 1901		v. sl.	.21	41.0	16.3	24.7	.4750	.0575	.0575	.0000	6.21	1.78	.0253	.82	1,870,813
Bed 4, 1900															
Bed 4, 1901	sl.	v. sl.	.20	30.7	8.2	22.5	.3890	-0567	. 0559	.0008	6.55	.89	.0506	.71	596,713

### PAWTUCKET SEWAGE.

Yearly Averages of the Chemical and Bacteriological Examinations of the samples obtained from the Sewage Purification Plant at Pawtucket.

	Аррі	EARAN	CE.	ON	ESIDU EVAI	PO-		Аммо	ONIA.			Nitro	OGEN.		
								Alb	umino	id.				ed.	ပ်
	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free,	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per. c.
Sewage				93.1	52.5	40.6	8.38	1.27	.72	.55	11.76			13.27	19,586,263
Septic				61.7	30.4	31.3	6.51	.81	.64	.17	8.66			8.66	48,032,760
Beds 10-11	sl.	sl.		41.2	12.9	28.8	3.51	.1289	.1063	.0226	7.91	1.164	.0450	2.13	375,743
Beds 12-13				46.0	19.3	26.7	2.65	.1058	.0978	.0080	7.70	2.94	.0292	1.54	471,650
Bed 14	gr.	"					3.26	.3630	.2790	.0840	8.45	.14	.0026	3.75	4,390,250
Bed 15							2.72	.2996	.2311	.0685	8.09	1.001	.0250	3.03	9,390,429
Bed 16	d.	v. sl.					1.40	.2086	.1456	.6630	7.96	1.72	.0661	2.21	1,396,294
Bed 17		sl.					1.02	.1769	. 1325	.0444	7.28	2.17	.0622	2.03	1,716,038
Effluent at				40.4	12.9	27.5	2.35	.1033	.0838	.0195	8.02	2.10	.0309	1.57	267,267
River above plant-day	d.	d.		37.3	14.7	22.6	.2835	. 3553	.2165	.1388	3.51	.028	.0085	3.38	2,637,857
River above plant-night.			.49	28.4	11.6	16.8	.1120	.0860	.0515	.0345	2.38	.032	.0037	2.58	202,966,666
River below plant-day			,	33.9	18.5	20.4	.3414	.2557	.1869	.0688	3.21	.019	.0039	3.15	3,302,500
River below plant-night.	sl.		.49	30.6	12.8	17.8	. 2030	.0975	.0800	.0175	2.38	.085	.0044	2.77	190,910,000

### CENTRAL FALLS SEWAGE.

Yearly Averages of the Chemical and Bacteriological Examinations of the samples obtained from the Sewage Purification Plant at Central Falls.

-											_				
	APP	EARAN	CE.	ON	SIDU EVA	PO-		Амм	ONIA.			Nitre	OGEN.		
DATE OF COLLECTION.	Turbidity.	Sediment.	Color.	Total,	Loss on Ignition.	Fixed.	Free.	Total.	In Solution,	In Suspension.	Chlorine.	As Nitrates,	's Nitrites.	Oxygen Consumed.	Bacteria per c. c.
			_		_	_									
Sewage		••••		139.2	82.8	56.4	11.41	1.93	1.20	.73	17.20			19.66	23,284,318
Septic				88.0	34.7	53.3	9.56	.76	.53	.23	18.85			8.35	3,654.474
Beds 1-2-3				68.5	18.9	49.6	3.74	.1704	.1461	.0234	16.19	2.60	.0199	2.20	823,996
Beds 4-5				74.1	20.6	53.5	4.75	.2710	.2293	.0417	19.65	2.29	.0460	2.84	790,533
Beds 6-7			.68	71.8	23.7	48.1	4.25	.2100	.1848	.0252	17.08	2.81	.1078	2.47	2,078,544
Stream			.58	26.6	8.0	18-6	.4806	.0427	.0347	.0080	4.34	.74	.0202	.61	475,088

Yearly Averages of the Chemical and Bacteriological Examinations of the samples obtained from the Sewage Purification Plant at Woonsocket.

	App	EARAN ,	CE.	on	EVA	PO-		Амм	ONIA.			Nitre	ogen.		
DATE OF COLLECTION.					Ignition.			Alb	oumino			*Se		nsumed.	er c. c.
	Turbidity.	Sediment,	Color.	Total.	Loss on Igr	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c. c.
Sewage				73.5	38.3	35.2	3.05	.820	.389	.431	9.05			8.90	6,806,095
Bed 1	sl.	v. sl.	.19	53.2	20.4	32.8	.2860	.0644	.0572	.0072	6.09	3.63	.0864	.88	143,670
Bed 2		v. sl.	.08	40.1	13.8	26.3	.0380	.0271	.0271	.0000	6.40	2.18	.0137	.38	119,650
Bed 3	sl.	v. sl.	.21	41.0	16.3	24.7	.4750	.0575	. 0575	.0000	6.21	1.78	.0253	.82	1,870,813
Bed 4	sl.	v. sl.	.20	30.7	8.2	22.5	.3890	.0567	.0559	.0008	6.55	.89	.0506	.71	596,713

### SEWAGE DISPOSAL AT NARRAGANSETT PIER.

By request of the District of Narragansett a study of the character of the sewages coming from different sources in the town or district was made to determine what treatment, if any, might be given to the sewage before allowing it to flow out into the ocean.

Although the iron drain pipes carrying the sewage are extended well out beyond low water, yet much of the solid and greasy portions of the sewage would rise to the surface of the water and be washed or blown back to the shore.

A series of samples were taken through July and August, at which time the hotels were using these sewer outlets, and while the hotels were open and delivering the maximum amount of sewage.

Samples were taken from the South Pier, the Rodman street, and the Taylor street sewers.

As will be noted in the following tables, the two latter indicate that a large amount of solids is derived from the wastes coming from the hotels, notwithstanding the large amount of dilution from water coming from water closets and laundries.

An analysis of the Rodman street sample, taken on August 6th, shows an enormous amount of fats in the residue, illustrating the amount of material wasted in the running of a summer hotel.

### NARRAGANSETT PIER SEWAGE.

Chemical and Bacteriological Examination of the Sewage of Narragansett Pier, the sample being taken from South Pier.

	API	PEARA	CE.	ON	ESIDU EVA:	РО-		Амм	ONIA.			Nitre	OGEN.		
Date of						77		Alb	umino					med.	c.
Collection.	Turbidity.	Sediment.	Color,	Total.	Solution,	Suspension.	Free.	Total.	In Solution.	In Suspension	Chlorine.	As Nitrates.	As Nitrites,	Oxygen Consumed.	Bacteria per c. c.
July 31				57.8	37.0	20.8	4.50	.73	.38	.35	7.04			6.20	••••
Aug. 6				fats 344.8	41.2	303.6	3.50	.83	.48	.35	10.60			6.80	20,549,000
Aug. 18				49.0	34.4	14.6	1.70	.43	.20	.23	5.78			7.60	53,320,000
Aug. 27				65.2	36.2	29.0	4.50	.71	.41	.30	5.74			7.80	5,590,000
Monthly avg.				158.0	37.3	115.7	3.23	.66	.36	.30	7.37			7.28	26,483,333
Sept. 3				60.2	38.4	21.8	3.50	.70	.34	.36	5.36			7.70	12,190,000
Yearly avg				115.4	37.4	78.0	3.54	.68	.36	.82	6.90			7.12	22,910,000

### NARRAGANSETT PIER SEWAGE.

Chemical and Bacteriological Examination of the Sewage of Narraganset Pier, the sample being taken at Rodman Street.

	APPE	ARA	NCE.	on	ESIDU EVAI ATION	,0-		Аммо	ONIA.			NITR	OGEN.		
DATE OF								Alb	umino	oid.			1	ed.	
Collection.	Turbidity.	Sediment.	Color.	Total.	Solution.	Suspension.	Free.	Total.	In Solution.	In Suspension.	Chlorine,	As Nitrates.	As Nitrites,	Oxygen Consumed.	Bacterla per c. c.
July 31				465.0	427.0	38.0	2.80	.61	.40	.21	••••			7.80	•••••
Aug. 6				Fats. 1228.0	496.2	731.8	2.60	1.16	.61	.55				10,50	58,900,000
Aug. 13				283.4	157.6	125.8	3.80	.90	.37	.53				10.50	18,930,000
Aug. 21				320.0	303.6	16.4	3.50	.61	.30	.31				5.80	18,600,000
Aug. 27				439.6	426.6	13.0	3.50	. 62	.27	.35				5.40	14,980,000
Monthly avg.				567.8	346.0	221.8	3.35	.82	.39	.43				8.05	27,852,500
Sept. 8				360.0	322.4	37.6	2.10	.47	.26	.21	•••••	•••••		4.90	13,640,000
Yearly avg				516.0	355.6	160.4	3.05	.78	.37	.36				7.48	25,010,000

### NARRAGANSETT PIER SEWAGE.

Chemical and Bacteriological Examination of the Sewage of Narragansett Pier, the sample being taken from Taylor street.

### (Parts in 100,000.)

	Appi	EARAN	CE.	on	ESIDU EVAP ATION	0-		Амм	ONIA.			Nitro	OGEN.		
DATE OF								All	oumino	oid.				ed.	ů
Collection.	Turbidity.	Sediment.	Color.	Total.	Solution.	Suspension.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Bacteria per c.
July 31				513.0	487.0	26.0	1.50	.66	.35	.31				6.10	••••
Aug. 6				308.2	278.2	30.0	3.20	.70	.30	.40				6.10	15,480,000
Aug. 13				199.8	175.8	24.0	2.10	.76	.31	.45				6.90	20,770,000
Aug. 21				432.4	370.8	61.6	1.10	.96	.53	.48				9.50	20,460,000
Aug. 27				470.4	436.0	34.4	1.80	.64	.22	.42				6.10	21,280,000
Monthly avg.				352.7	315.2	37.5	2.05	.77	.34	.43				7.18	19,485,000
Sept. 3				496.0	459.8	36.2	1.00	.42	.21	.21				4.30	11,995,000
Yearly avg				403.3	367.9	35.4	1.78	. 69	.32	.87				6.50	17,987,000

Yearly Averages of the Chemical and Bacteriological Examinations of the samples obtained from the Sewers at Narragansett Pier.

South Pier	115.4 87.4 78.0	3.54 .68 .36	.32 6.90	7.12 22,910,000
Rodman St	516.0 855.6 160.4	3.05 .78 .37	.36 7	7.48 25,010,000
Taylor St	403.8 867.9 85.4	1.78 .69 .32	.37 6	3.50 17,987,000

### METEOROLOGY.

It has been remarked in previous reports of the Board that the influence of the meteorological conditions of the atmosphere, as well as the floating matter suspended therein, is recognized and acknowledged by all pathologists as causes of disease; and the following tables are therefore introduced, as heretofore, for the purpose of comparing the large prevalence of certain diseases, at different monthly periods of the year, with the temperature, the atmospheric pressure, the relative humidity, prevailing direction and force of the wind, and other conditions of the atmosphere, and also the amount of cloud and rain-fall during each month of the year. All of the said diseases and monthly prevalence of the same may be found in the report upon the registration of deaths arranged by MONTHS, in Table VII of the Registration Report.

The first table is compiled from the monthly reports of the city engineer of Providence, and shows the mean, maximum, and minimum temperature of the different months, and the extremes and average daily range of the same; the rain-fall, and prevailing direction of the wind.

The second table will give a more comprehensive monthly summary of observations during 1901, including a large number of atmospheric conditions for each month, and also yearly summaries for each of the twenty preceding years.

It is condensed from the annual summary of monthly observations at Hope reservoir and the city hall, in Providence.

Table I.

Temperature, Range of Temperature, Rain-fall, and Prevailing Direction of the Wind for each Month during the year 1901.

			ТЕМ	PERAT	URE.			felted	
Months.	Monthly Mean.	Maximum.	Minimum.	Monthly Range.	Greatest Daily Range,	Least Daily Range.	Average Daily Range.	Total Amount of Rain or Melted Snow in inches.	PREVAILING DIRECTION OF THE WIND.
January	28.9	49.5	-2.5	52.0	32.5	3.5	12.4	1.93	N. W.
February	24.3	45.0	10.5	34.5	21.0	6.5	12.4	1.00	N. W.
March	37.7	57.0	11 5	45.5	24.0	6.0	14.2	8.10	N. W., variable.
April	46.1	73.0	34.0	39.0	35.0	2.0	11.8	8.90	N. E.
May	56.9	84.5	42.5	42.0	35.0	3.5	16.5	6.85	Variable.
June	70.3	97.5	50.5	47.0	29.5	4.5	20.1	1.00	S., variable.
July	76.1	99.0	58.0	41.0	25.5	6.0	17.7	2.93	Variable.
August	73.2	90.5	60.5	30.0	25.5	9.5	17.4	2.56	Variable.
September	65.3	89.0	42.5	46.5	25.5	6.5	17.6	4.17	Variable.
October	53.9	74.0	35.0	39.0	24.5	9.5	16.9	2.98	N. W.
November	38.0	65.5	12.5	53.0	20.5	6.5	12.6	2.24	N. W.
December	33.0	59.0	7.5	51.5	34.0	2.5	12.8	9.40	N., N. W.
For year	50.4	73.6	30.2	43.4				52.06	N. W., variable.

TABLE II.—Summary of Meteorological Observations at Hope Reservoir and City Hall, for the year 1901.

RAIN AND SNOW.	M	Depth of Snor	t 5.75	10.00	*	:	:	:	:	:	:		*	5.50	1 :	21.35	:	
RAIN AN SNOW	won	Amount of Ra or Melted S in inches.	1.93†	1.00+	8.10	8.90	6.85	1.00	2.93	3.56	4.17	2.98	5.94	9.40		52.06	:	ĺ
	Jo 1	Mean Amoun Cloud,	5.0	2.9	6.1	7.7	6.0	8.8	5.1	5.6	4.6	ა.	4.6	ت. ي	5.0	:	:	6
	as	All others.	0	0	_	0	0	1	0	0	0	0	-	-	1 :	7	:	
Wеатнен.	ere. it w	To nissi .wong	77	ţ-	16	16	<u>s</u>	00	1,7	Ξ	133	00	10	7	1 :	153	:	
EAT	shp	Variable,	c>	0	-	GΣ	-	0	0	1	25	_	-	G\$	1 :	55	:	
-	Atmosphere. No. of Days it was	Fair.	20	13	10	£-	Ξ	19	<b>±</b>	19	10	13	22	G	<u>:</u>	145	:	ì
	No.	Clear.	ž=	œ	ಣ	20	~	ÇŞ	0	0	5	6	9	ro	;	51	:	
	. ۲۶.	Mean Veloci	200	Ξ	6	10	6	£-	9	9	9	~	œ	6	œ	:	:	ł
		Variable.	ũ	-	90	5	œ	œ	Ξ	10	6	9	G₹	G\$	1 :	10	:	
		Northwest.	10	19	00	-	တ	7	C5	ಯ	9	20	17	ţ~	1 :	90	:	i i
	ion.	West.	25	ro	22	0	-	0	ಣ	-		4	¢\$	22	1 :	98	:	d rai
ND.	Prevailing Direction. No of Days it was	Southwest.	25	-	7	0	0	9	G₹	-	G₹	20	35	7	<u>:</u>	25	:	v an
WIND.	ng D Days	South.	25	-	-	91	i-	œ	r.	6	5	ī.	0	9	1	51	:	+ Snow and rain
	raillin of	Southeast.	0	0	0	<b>cs</b>	1		C5	-	-	0	0	31	1 :	10	:	+
	Prev	East.	~	0	0	4	_	0	1	-	0	0	0	0	1	80	:	
		Northeast.	0	-	22	11	<b>!~</b>	ŭ\$	-	တ	¢>	0	G₹	0		34	:	
		North.	20	0	21	5	23		7	C₹	4	20	r.c	t-	1 :	44	:	
RELA-	HUMID- ITY.	Жеап.	25	19	89	92	5.5	29	133	25	7.	89	99	92	7.1	:	:	asured.
-		Range.	55.	34.5	45.5	39.	3; 2;	÷	41.	30.	46.5	39.	53.	51.5	43.4	:	101.5	e me
	Тиевмометеня.	Minimum.	2.2	10.5	11.5	34.	43.5	20.2	58.	60.5	43.5	35.	13.5	7.5		:	-2.5-16	Too small to be measured
	ERMO	Maximum.	49.5	45.	57.	73.	81.5	97.5	99.	90.5	.68	74.	65.5	59.	1	:	99.	o sm
	Tur	Деви.	28.9	81.3	37.7	46.1	6.99	20.3	76.1	23.55	8.29	53.9	38.	33.	50.4	:	:	* To
	[6]		£.	ã 30·	21 3	25.4	36	.63	.55	533	1.00	.23	1.15 3	1.12 3	1 30	:	<u> </u>	
	Lev	Напке.			-							-		35 1.		:		
ETEI	Sea . 32°	Maimum.	28.91	56 53	29.50	29.21	29.35	29.60	29.71	29.75	29.51	29.45	29.18	29.3	!	:	28.9	
Вапометеп	Reduced to Sea Level and to 32°.	Maximum.	30.67	30.25	30.41	30.46	30.17	30.55	30.26	30.28	30.51	30.65	30.33	30.47		:	30.67 28.91	
	Redu	Меап,	29.90	29.71	29.86	29.95	29.86	29.94	29.92	30.03	30.03	30.08	29.89	29.99	29.93	:		
		Montus.	January	February	March	April	May	June	July	August	September	October	November	December	Means for the year.	Totals for the year.	Extremes	

28

Table II.—Continued.—Summary of Meteorological Observations at Hope Reservoir and City Hall.

AND	М	Depth of Sno in inches.
RAIN	niss wons	Amount of I or Melted in inches.
	lo 1	Mean amoun Cloud.
-:	sa sa	All others.
THEF	it w	Rain or Snow.
WEA'	days	Variable.
	Atm o. of	Fair.
	ž	Clear.
	· A:	Mean Velocit
		Variable.
		Northwest.
	tion.	West.
'IND.	oirec s it v	Southwest.
A	ng I day	South.
	ovail o. of	Southeast.
	Pre	East.
		Northeast.
		North,
RELA-	HUMED- ITY.	Mean.
		Range.
	METERS	.mnminiM
	ERMC	Maximum.
	Tu	Меап.
	evel	капке.
ETER.	Sea L 32°.	.mumiaiM
SAROM	ed to	Maximum.
74	Reduc	Mean.
Ваком	Reduced to sand to	

### YEARLY SUMMARY FOR 1900.

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Means for the year. 29.96	96.66			1.19	1.19 51.9		:	49.4	69	:	:	:	:		<u>:</u>	<u>:</u>	:	:	œ	:		<u>:</u>	<u>:</u>	:	ì-	:	
Totals for the year.		:			:	:	:	:			53 18	18	00	5 35		43 45 81	81	2.2	:	55	77 55 140 6	9	152 12			47.78	19.50
Extremes		30.71	28.74	1.97	30.71 28.74 1.97 99.5 -1.5 101.	93.5	7	5 101.				:	:		<u>:</u>		:	:	:	:	:	:	<u>:</u>	÷			
								YE	YEARLY SUMMARY FOR 1899.	$\mathbf{S}_{\mathrm{U}}$	MW.	ARY	FOI	R 18	399.												
Means for the year. 30.00	30.00			, 1.04	1.04 50.9			45.1	89		= :	:	-		-		:		00	:		:	-	:	9		
Totals for the year.	:		:	. :	:	:					9	4	3 19	49 14 6 12 50 42	45	30	98	92	:	69	86 76 69 139 11 138		138	·:		49.54	47.25
Extremes	:	30.83	28.83	2.00		94.5	G.	97.	30.88 28.88 2.00 94.5 -2.5 97.	: :	-:	:	:	:	:	:	:	:	:	:	-	÷		<u>:</u>	<u>:</u>		:
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### VEARLY SHAMABY FOR 1898.

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Means for the year. 29.99 1.11, 51.8	29.99	:		1.11	51.8			46.1	7.5	<u>:</u>	:	:				<u>:</u>	-	œ	:		- :	:	7.0		-
Totals for the year.	:	:	:	:	:			:		49	31	9	1.	44 4		9,5	75	:	47	136	-2	34 6	:	63.5	49 31 6 17 44 41 26 76 75 47 136 12 164 6 63.50 65.50
Extremes		30.75	28.67	2.08		101.5	0.	101.5	30.75 28.67 2.08 101.5 0. 101.5	:	i	:	:	:	<u>:</u> :	:	<u>:</u>	:			:		<u>.</u>		-:

## YEARLY SUMMARY FOR 1897.

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Means for the year, 29.99	29.99	:	:	1.12 50.8	8.09	:	:	46.5	0.2	:	:				:			00	:		:	-:	<del>*</del>	00	:	
Totals for the year.	:	:	:	•	:	:	:-	÷		25	55	t-	£-	÷	- 6	68	69	:	89	125	<u>-</u>	09	:	52 23 7 7 52 39 27 89 69 68 125 7 160 5 47.63 52.50	.63	52.50
Extremes	:	30.84 25.98 1.86 95.	86.82	1.86			5.5	89.5		:	:	:	<u>:</u>	:	:	<u>:</u>	<u>:</u>	:	:	:	:	_ <u>:</u>	:		-	:

### YEARLY SUMMARY FOR 1896.

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### YEARLY SUMMARY FOR 1895.

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### YEARLY SUMMARY FOR 1894.

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Table II.—Continued.—Summary of Meteorological Observations at Hope Reservoir and City Hall.

RAIN AND SNOW.	nis A Won S	Mean Amou Cloud. Amount of in inches. In inches. Depth of Sp		51.28 80.50		37.39 43.00		5.1 53.19 31.25
<b>W</b> ЕАТНЕВ.	Atmosphere. No. of days it was	Clear. Fair. Variable. Rain or Snow. All others.		53 198 P		47 147 9 156 7		37 158 7 158 5
Wind.	Prevailing Direction. No. of days it was	North.  Northeast. South. South. South. South. Vest. Vorthwest. Vorthwest.	YEARLY SUMMARY FOR 1893.	57 15 9 18 45 82 88 72 89	Yearly Summary for 1892.	50 19 8 10 41 38 52 75 73	YEARLY SUMMARY FOR 1891.	46 24 8 11 63 40 26 73 74
RELA-	Thermometers. Humidity.	Mean. Maximum. Mange.	YEARLY S	48.6 44.8 73 95.5 0. 95.5	YEARLY S	50.4 43.8 71	YEARLY S	96.8 74
BAROMETER.	Reduced to Sea Level and to 32°.	Mesn. Marlmum. Mange.		Means for the year.       29.98       1.13         Totals for the year.       30.81       38.84       1.97		Means for the year.       29.98		Means for the year 30.02 1.10 E

## YEARLY SUMMARY FOR 1890.

deans for the year.	30.00		:	1.00	50.4	:	:	15.4	7	<u>:</u>	:	:	:	:	<u>:</u>	:	<u>:</u>	- 6	<u>:</u>		:	÷	:	4. :		:
rotals for the year.	:	:		:		:			52 15 6 13 47 32 43 79 78 37 151 7 168 2	25	15	9	13	27	33	- S	87 6	:	2	151	ţ-	168	¢5	:	50.60	45.00
xtremes	:	30.88 29.23 1.65	6.23	1.65	:	96. 5.8	5.5	90.5			:				:	:	:	-	<u>:</u>	<u>:</u>	:		:	:		

### YEARLY SUMMARY FOR 1889.

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1.4	:	:
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6.62		
Means for the year. 29.99 1.15 51.4	otals for the year.	этеs
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### YEARLY SUMMARY FOR 1888.

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Means for the year, 30.00		
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31.50

# YEARLY SUMMARY FOR 1887.

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		<u>:</u>
73		
4.	:	95.5
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		94.
49.4		
1.26	:	2.03
:	•	18.91
		30.97 ;
30.01	:	
Means for the year, 30.04	or the year.	
Means fo	Totals f	Extreme

27.25

39.70

46.6 71

1.09 48.7

Means for the year. 29.98 .....

Totals for the year.

94.5

93.5

1.83

Extremes..... 30.82 28.99

TABLE II.—Concluded.—Summary of Meteorological Observations at Hope Reservoir and City Hall.

A ≥ .	MC	Depth of Sno in inches.
KAIN	nis word	Amount of R or Melted in inches.
	10,1	Mean amoun Cloud,
	as	All others.
PHER	ere. it w	Rain or Snow.
VEA	osph Days	Variable.
	Atm of	Fair.
	No	Clear.
	*4	Mean velocit
		Variable.
		Northwest.
	lon.	West.
ND.	irect it w	Southwest.
W	ng D Days	South.
	of	Southeast.
	Prev No.	East,
		Northeast,
		North.
RELA-	HUMID- ITY.	Mean,
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### YEARLY SUMMARY FOR 1886.

the same of the sa	-	-		and sales and sales and	-	-							-	- Annual Property and a second								ı			
Means for the year, 30.01 1.13 48.8	30.01			1.13	28.8	:	:	16.8	1.4	:	:	:		<u>:</u>	:	<u>:</u>	:		-				.5		
Totals for the year.		:	:		:	-:	:	:		51	53	12	7 5	36	33	69	7.4	i	34	143		- 00	<u>:</u> .	51 27 12 7 56 30 39 69 74 84 143 18 160 10 52.02 54.50	54.50
Extremes		30.80	69.82	2.11		95.5	-5.5	101.	80.80 28.69 2.11 95.5 -5.5 101	:	<u>:</u>			<u>:</u>	:	<u>:</u>	<u>:</u>	:	÷	<u>:</u>	<u>:</u>		:		
								YEA	FEARLY SUMMARY FOR 1885.	SUM	MAR	Y F(	)R 1	885											

### EARLY SUMMARY FOR 1884.

								FEA	EARLI DUMMARI FOR 1004.		MAR	ب ب	1	004										
Means for the year. 30.01 1.	30.01		:	1.05	49.5			49.2	92	:	:			:	<u>                                     </u>	<u>:</u>	6	-			<u>:</u>	rc		
Potals for the year.	:	:	:	:						57	66 67		14 4	25	 63	73	57 22 8 14 42 60 27 63 73 36 127 26 166 11	36	127	36	36 11	<u>:</u>	48.	48.76 44.50
Extremes	Ī	30.79	28.93	1.86		94	-10.	104.	30.79 28.93 1.86 94 -10. 104	<u>:</u>		<u>:</u>		:	 <u>.</u>	<u>:</u>	- :	:	=:	:	<u>:</u>	<u>:</u>		

20

1883.	
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SUMMARY	
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feans for the year.	30.05		-	1.08 48.2	31	:	45.5	- 73.		:		- :		-:	:	:	=	25	\$2 \$2		:	:		5.1		
lotals for the year.			:	:	:	:	:	-	:	43	31	{-	11 4	12	99	-32	73		45	186	17	156	=	:	43 31 7 11 44 51 85 70 73 45 186 17 156 11 39.54 73.00	73.00
tremes	:	30.77 28.88 1.89 93 -9.5 102.5	38.	68.		1	9.5 108		:	:	:	:		:	:	- :	÷	:		:	:	:	:	:		:

## YEARLY SUMMARY FOR 1882.

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-	:	16	:	
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-	:	97	:	
	:	54	:	
	G2	:	:	
-	97.	<u>:</u>		
	16.	<u>:</u>	106.	
			-11.	
1	:	:	95.	
-	33.			
-	33 4	:		
_	1.6	:	10	
	:	:	20.32	
	3 1.03 49.2		30.79 29.22 1.57 95. —11. 106	
-	30.03	:		
-	r.	r		
	Means for the year, 30.03	Fotals for the year.	1es	
	Means	Totals	Extren	

### YEARLY SUMMARY FOR 1881.

													-	-	-	-			-		-	ŀ				
Means for the year, 30.00 1.08 49.6 44.5 7	30.00	:	:	1.08	49.6	:	:	44.5	73	:	:	:		:	:	:	:	2.15	:	:	:	÷	.5	2.15 5.1	:	:
Totals for the year	:	:	:	:	:	:		:	47 88 12 9 50 47 20 80 67 80 73 51 130 28 44.79 27.2	47	833	27	C:	0 4	08	80	67	:	98	£3	1 10	20 20 30	- i	77	62.	52
Extremes		30.80	28.97	1.83	:	.96	7	100.	30.80 28.97 1.83 96. —4. 100.	:	:	-		- :-	. : .	:	:	:	:	- :-	:	-:	:		:	:

The force of the wind and amount of cloud are closely approximated in figures from 0 to 10,

The rabifull observations previous to 1886 have been corrected for an inaccuracy caused by the imperfect construction of the gauges with which they were made.

Condensed Tuble of Meteorological Observations in Rhode Island, 1881-1901.

	Redu	BAROMETER. Reduced to Sea Level and to 32° F.	ETER. vel and to 32			Тневмометеия.	HETERS.		•,	PRECIPITATION.	FATION.	
Years.	Меап Ваготебет.	Highest Harometer.	Lowest Isarometer.	Mean Range of Barometric Pressure.	Меап.	.mumizsM	Minimum.	<b>М</b> еа <b>п</b> Капge.	Mean Humidity	Rain and Melted Snow in inches.	Number of Days Snow or Rain fell,	PREVAILANG DIRECTION OF WIND.
1001	29.93	30.67	28.94	1.02	50.4	99.0	-2.5	43.4	11	52.06	152	N. W.
.006	96.66	30.71	28.74	1.19	6.16	6.66	-1.5	49.4	69	47.78	152	
668	30.00	30.33	28.83	1.04	6.09	94.5	-2.5	45.1	89	49.24	138	N.W.
868	56.66	30.75	28.67	1.11	51.8	101.5	0.0	46.1	22	63.50	164	N. W.
200	66.66	30.84	58.98	1.13	50.8	95.0	5.5	46.5	70	47.63	160	
896.	59.99	30.85	28.87	1.17	50.4	0.86	0.6-	49.0	69	45.91	152	N. W.
895	86.68	30.75	28.61	1.17	51.0	0.86	0.6-	45.5	20	50.81	155	N. W.
894.	30.01	80.78	82.88	1.06	51.4	97.0	-4.0	45.4	53	42.27	153	Variable
893,	86.98	30.81	28.84	1.13	48.6	95.5	0.0	44.8	73	51.28	151	N. W.
?68	86.68	30.65	58.33	1.66	50.4	0.96	2.0	43.3	2	37.39	156	N. W.
891.	30.05	30.78	28.81	1.10	51.7	0.86	6.0	46.8	74	53.19	158	N. W.
890.	30.00	30.88	29.23	1.00	50.4	0.96	5.5	45.4	7.4	20.60	168	N. W.
.889.	29.99	30.90	28.93	1.15	51.4	93.5	0.5	42.3	92	55.91	166	N. W.
888	30.00	30.85	28.75	1.21	48.2	96.5	0.6—	46.5	22	63.44	167	N. W.
SST.	30.01	30.97	58.94	1.26	49.4	94.0	-1.5	47.0	£5	50.98	154	N. W.
	30.01	30.80	69.88	1.13	48.8	95.5	-5.5	46.8	7.4	53.03	160	Variable
855.	29.98	30.85	58.99	1.09	48.7	93.5	-1.0	46.6	71	39.70	142	N. W.
884.	30.01	80.79	28.93	1.05	49.5	94.0	-10.0	49.3	92	48.76	166	Variable
	30.05	30.77	28.88	1.08	48.2	93.0	-9.5	45.5	22	39.54	156	Variable
888.	30.03	30.77	29.22	1.03	49.2	95.0	-11.0	46.0	-7.5	44.96	136	N. W.
1061	30.00	30.80	28.97	1.08	49.6	96.0	-4.0	41.5	55	44.79	130	N. W.

Meteorological Observations for the Whole State for 1901.

MONTHES  M	(IN DEPARTMENTER)  (IN DEPARTMEN										and and	l di						
### The color of t	### Proof of the P			NI)	TEM:	PERATU ES FAHR	IRE ENHEIT)				PRECI	PITATI	N.O			SKY.		WIND.
30.8	30.8	MONTHS.	Меап.	Departure from the	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the	Greatest in 24 hours.		Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.	Prevailing direction.
30.8         -0.4         50         16         2         20         33         1.95         -2.30         1.01         4         11         9         12         10         81         1.95         -2.30         1.01         4         11         9         12         10         N           25.1         -6.6         39         19         10         *14         21         0.83         -3.61         17         10         9         9         13         N           42.4         -1.0         52         25         13         7         19         5.60         +1.58         2.01         17         10         9         9         13         N           51.2         -1.3         7         19         5.60         +1.58         2.01         17         10         9         9         13         N           61.8         -0.2         86         30         47         17         22         2.56         -0.58         1.59          11         4         15         18         8         8           61.8         40.7         40         1         1.24         -1.84         -0.78         1.04	30.8							BLOC	K ISLA	ND.		-						
35.6         +1.0         55.1         19         10         *14         21         0.83         -3.61         0.45         5         4         16         10         20         NY           35.6         +1.0         52         25         13         7         19         5.60         +1.58         2.01         7         10         9         9         13         NY           42.4         -1.0         59         29         33         1         22         6.53         +3.09         1.53         7         10         9         9         13         NY           61.8         -1.3         72         29         32         2.56         -0.58         1.59         7         19         1.24         1.50         7         19         19         8         8         8         8         8         8         8         8         8         8         9         11         4         15         19         19         19         8         8         8         8         9         19         19         19         19         8         8         8         9         19         19         19         19         19	19. 1.	ary	30.8	-0.4	50	16	25	03	88	1.95	-2.30	1.01	4	11	6	- či	10	N. W.
35.6         +1.0         52         13         7         19         5.60         +1.58         2.01         T         10         9         9         13         W           42.4         -1.6         59         29         33         1         22         6.53         +3.09         1.53          16         5         5         20         N           61.8         -1.3         72         24         36         22         5.93         +2.03         3.37          16         10         9         9         17         8           61.8         -0.13         86         30         47         17         22         2.56         -0.58         1.59          19         19         8         8         8         8         8         9         8         8         8         8         9         11         4         15         19         19         8         8         8         8         8         8         8         8         8         8         8         8         8         9         11         4         15         19         8         8         8         9         9	35.6   +1.0   52   25   13   7   19   5.60   +1.58   2.61   T.   10     42.4   -1.6   59   29   33   1   22   6.53   +3.09   1.53   16     51.2   -1.3   72   24   36   2   22   5.93   +2.03   2.87   16     61.8   -0.2   86   30   47   17   22   2.56   -0.58   1.59   1.51     63.3   +1.0   86   3   55   27   19   1.24   -1.84   0.78   111     63.9   +0.7   82   11   55   30   18   3.82   +0.41   1.74   10     64.6   +0.9   81   6   44   26   20   4.07   +0.67   1.04   111     54.5   +0.7   69   10   36   26   21   3.44   -0.99   2.69   7.   6     54.5   +0.7   69   11   28   19   2.02   -1.58   2.08   T.   6     48.2   -1.9   58   14   9   19   29   8.67   +5.59   1.85   4   13     48.2   -1.9   58   14   9   19   29   8.67   +5.59   1.85   4   13     84.8   -1.9   86   2   2   2   2   2   2   2   2     85.0   -1.0   -1.0   -1.0   -1.0   -1.0     86   -1.0   -1.0   -1.0   -1.0   -1.0     86   -1.0   -1.0   -1.0   -1.0   -1.0     87   -1.0   -1.0   -1.0   -1.0     87   -1.0   -1.0   -1.0   -1.0     87   -1.0   -1.0   -1.0     88   -1.0   -1.0   -1.0     89   -1.0   -1.0   -1.0     80   -1.0   -1.0   -1.0     80   -1.0   -1.0   -1.0     80   -1.0   -1.0   -1.0     80   -1.0   -1.0   -1.0     80   -1.0   -1.0   -1.0     80   -1.0   -1.0   -1.0     80   -1.0   -1.0   -1.0     80   -1.0   -1.0   -1.0     80   -1.0   -1.0   -1.0     80   -1.0   -1.0   -1.0     80   -1.0   -1.0   -1.0     80   -1.0	nary	25.1	9.9-	39	19	10	*14	23.	0.83	-3.61	0.48	5	4	16	10	G.S	
42.4         -1.6         59         39         1         22         6.53         +3.09         1.53          16         5         5         20         N.           51.2         -1.3         72         24         36         22         5.93         +2.03         3.37          16         10         9         12         8.           61.8         -0.2         86         30         47         17         22         2.56         -0.58         1.59          16         19         8         3         8         8          17         4         1.54          16         10         9         12         8         8          17         14         1.24         -1.84         0.78          11         4         15         12         8         9         8         9 <td< td=""><td>  51.2</td><td>h</td><td>35.6</td><td>+1.0</td><td>25</td><td>25</td><td>13</td><td>2</td><td>19</td><td>5.60</td><td>+1.58</td><td>2.61</td><td>T.</td><td>10</td><td>6</td><td>6</td><td>13</td><td>W.</td></td<>	51.2	h	35.6	+1.0	25	25	13	2	19	5.60	+1.58	2.61	T.	10	6	6	13	W.
51.2         -1.3         72         84         86         2         22         5.93         +2.03         2.37          16         10         9         12         8.           61.8         -0.2         86         30         47         17         22         2.56         -0.58         1.59          19         8         3         8         8         9         4         1.24         -1.84         0.78          19         18         8         8         8         8         9         11         4         15         12         8         8         8         8         8         9         11         4         15         19         8         9         8         8         9         8	51.2		42.4	-1.6	59	53	88	1	<b>66</b>	6.53	+3.09	1.53	:	16	7.0	2	50	
61.8         -0.2         86         30         47         17         22         2.56         -0.58         1.59          61.59          61.59          61.59          61.59          61.59          61.59          61.59          61.59          61.59          61.51         61.51         12         8         25         27         19         1.24         -1.84         0.78          11         4         15         12         8         8         8         8         6         11         4         15         12         8         8         8         8         9         12         12         13         10         11         10         8         8         8         8         9         6         8         8         8         8         8         9         6         8         9         6         8         8         8         9         8         9         8         9         8         9         8         9         8         9         8         9         8         9         9         9         9	61.8			-1:3	23	53	36	G2	55	5.93	+2.03	2.87	:	16	10	0	22	
69.3         +1.0         86         3         55         27         19         1.34         -1.84         0.78          11         4         15         12         8           63.9         +0.7         8         +0.7         +0.67         104          10         13         10         8         8           63.6         40         40         26         20         4.07         +0.67         1.04          11         15         9         6         8         8         8         8         9         6         8         8         8         8         9         6         8         8         8         8         9         6         8         8         8         8         9         8         9         8         8         8         8         9         8         9         8         8         8         9         8         8         8         8         9         8         8         9         8         9         8         9         8         9         8         9         8         9         8         9         8         9         8         9	68.9 +1.0 86 3 55 27 19 1.34 -1.84 0.78 11		61.8	~-0.2	98	30	47	17	65	2.56	-0.58	1.59	:	9	18	 ∞	co .	
68.9         +0.7         82         +1.7         1.74          10         13         10         8         8.           64.6         +0.9         81         6         44         26         20         4.07         +0.67         1.04          11         15         9         6         8.           54.5         +0.7         60         10         36         26         21         3.44         -0.99         2.69         7.         11         15         9         6         8.           39.4         -5.8         64         2         14         28         19         2.62         -1.58         2.08         7.         11         12         N.           34.8         -1.9         5         14         28         19         8.67         +5.59         1.85         4         13         10         7         14         N.           48.2         -1.9         9         19         19         2.9         8.67         +5.59         1.85         4         13         10         7         14         N.           48.2         -1.0         -1.0         -1.0         -1.0         -1.0 </td <td>68.9 +0.7 82 11 55 30 18 3.82 +0.41 1.74 10 10 10 10 10 10 10 10 10 10 10 10 10</td> <td></td> <td>69.3</td> <td>+1.0</td> <td>98</td> <td>99</td> <td>55</td> <td>22</td> <td>19</td> <td>1,24</td> <td>-1.84</td> <td>0.78</td> <td>:</td> <td>11</td> <td>4</td> <td>15</td> <td>22</td> <td></td>	68.9 +0.7 82 11 55 30 18 3.82 +0.41 1.74 10 10 10 10 10 10 10 10 10 10 10 10 10		69.3	+1.0	98	99	55	22	19	1,24	-1.84	0.78	:	11	4	15	22	
64.6         +0.9         81         6         41         26         20         4.07         +0.67         1.04          11         15         9         6         8.5           54.5         +0.7         69         10         36         26         21         3.44         -0.99         2.69         7.         17         10         4         8.           39.4         -5.8         64         2         14         28         19         2.62         -1.58         2.08         7.         6         7         11         12         N.           31.8         -1.9         58         14         29         19         8.67         +5.59         1.85         4         13         10         7         14         N.           48.2         1         9         19         29         8.67         +5.59         1.85         4         13         10         7         14         N.           48.2         1         1         9         19         2         13         10         7         14         N.           48.2         1         1         1         1         1         1	64.6     +0.9     81     6     44     26     20     4.07     +0.67     1.04     111       54.5     +0.7     69     10     36     26     21     3.44     -0.99     2.69     7.69       39.4     -5.8     64     2     14     28     19     2.62     -1.58     2.08     T.     6       48.2     11     9     19     29     8.67     +5.59     1.85     4     13       48.2     86     2     33     47.26     2.69     13     120       *On other dates also     2     33     7.10 dionics France	sts		+0.7	85	11	55	30	18	3.8%	+0.41	1.74	:	10	13	10	20	
54.5       +0.7       69       10       36       26       21       3.44       -0.99       2.69       7       17       10       4       8       8       7       11       12       N.       8       11       12       N.       12       14       12       12       14       12       14       N.       14       14       14       14       N.       14       14       N.       14       14       N.       14       N.       14       14       N.       N.       14       N.       14	54.5 +0.7 60 10 36 26 21 3.44 -0.99 2.69 6	mber	64.6	+0.9	81	9	44	98	30	4.07	+0.67	1.04	:	Ξ	15	6	9	
39.4     -5.8     64     2     14     29     14     29     14     29     14     29     1867     +5.59     1.85     4     13     10     7     14     N.       48.2     86.7     48.2     18     18     19     19     18     10     7     14     N.       48.2     86     86     87     47.26     88     18     115     116 <t< td=""><td>39.4 -5.8 64 2 14 28 19 2.02 -1.58 2.08 T. 6  34.8 -1.9 58 14 9 19 29 8.67 +5.59 1.85 4 13  48.2 7 86 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3</td><td>er</td><td>54.5</td><td>+0.7</td><td>69</td><td>10</td><td>36</td><td>98</td><td>21</td><td>3.44</td><td>-0.99</td><td>69.2</td><td>:</td><td>9</td><td>17</td><td>10</td><td>÷</td><td></td></t<>	39.4 -5.8 64 2 14 28 19 2.02 -1.58 2.08 T. 6  34.8 -1.9 58 14 9 19 29 8.67 +5.59 1.85 4 13  48.2 7 86 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3	er	54.5	+0.7	69	10	36	98	21	3.44	-0.99	69.2	:	9	17	10	÷	
81.8     -1.9     58     14     9     19     29     8.67     +5.59     1.85     4     13     10     7     14     N.       48.2     13     13     120     13     120     13     115     116     116       86     2     33     13     2.69     13     115     116     8	84.8 — 1.9 58 14 9 19 29 8.67 +5.59 1.85 4 13 13 48.2	mber	39.4	-5.8	64	¢≯	14	28	19	3.63	-1.58	80.2	T.	9	į-	11	22	
48.2       86     2       83     47.26       86     2       88     89	86 ** ** ** ** ** ** ** ** ** ** ** ** **	nber	84.8	-1.9	90	11	6	19	68	8.67	+5.59	1.85	4	13	10	2	7	
38. 86 87 88 2 88	86 2 83 47.26 13 120 1.86 8.0 2 8.00 Trindicates trans	37																
86 2 89 S. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8.	* On other defeals of Trindicates trace	30	:	:				:		47.26	:	:	13	130	184	115	116	
		mes.	:	:	98	:	35		\$5 55	:		3.69	:			:	-	

29

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à

55

1.50

+0.62

2.64

62\*

35

9

0.93

1.87

+0.61

3.59

55

59

70 88 87

+2.3

72.0

71.7

65.3

54.4

August......September.....

\*29

S. W.

18

Meteorological Observations for the Whole State for 1901.

### (CONTINUED.)

WIND.	Prevailing direc- tion.		N. W.	N. W.	N. W.	N. E.	Z.E.	oğ.
<u> </u>	days.			cs	13	02	13	4
¥.	Number cloudy							
SKY.	Number partly		10	2	-			9
	Number clear days.		14	19	11	22	10	80
	Number rainy days.		×	က	12	18	15	9
×	Total snow-fall (unmelted).		4	9	T.			:
PRECIPITATION (IN INCHES).	Greatest in 24 hours.		0.65	0.30	2.61	1.43		1.05
PRECIP (IN I	Departure from the normal.		-3.18	-4.09	+1.68	+1.69	+3.37	-0.68
	Total.		1.21	0.55	5.55	5.88	7.14	1.21
	Greatest daily range.	BRISTOL.	31	19	17	88	22	21
	Date.	BR	20	14	-3	-	<b>*</b>	16
RE ENHEIT).	Lowest.		1	12	13	34	40	49
TEMPERATURE	Date.		9	*18	ß	*38	83	30
TEMP	Highest.	1	47	33	57	63	72	98
(13)	Departure from the normal,		+0.8	7.4-7	9.0+	4.0	-1.9	4.0-
	Меап,		29.4	8.4.8	36.4	8.44	54.2	64.4
	MONTHS.		January	February	March	April	May	June

S. W. W. W. W.

9 14 20 14

7 5 9 7

2.34

2.95

26 26 29 29 29

54 54 54

+0.8

August.....

1 \*11 6 10

93 88 88 88 66 55

52.0

November.....

63.6

+6.39

¥.

W. S. W.

10-1

131

22 112

55.60

3.67

November	38.4	-4.8	09	-	15	*28	19	1.77	-2.94   1.00	1.00	F.	t-	17	6	4	N. W.	
December	32.6	-1.3	28	14	00	63	88	9.16	+5.84	1.69	2	133	14	10	4	ż	
Means	49.0									1 :					:		J
Totals	:		:	:	:	:	:	44.22			15	113	169	83	81	:	
Extremes			28		1	:	31	:		2.61	:		:			N. W.	
						KIN	KINGSTON.				,						
January	26.4	7.0-	20	6	6-	02	37	77	-3.11	0.48	9	=	10	11	10	W.	~
February	21.8	-5.2	2 <del>7</del>	*16	ಬ	7	68	1.13	-3.91	0.53	90	တ	15	22	_	W.	
March	34.6	+0.4	53	*35	4	ţ-	22.	8 28	+3.66	3.67	T.	15	00	2	188	W.	
A pril	43.9	8.0-	7.7	53	30	-	35	8.78	+3.95	1.90	:	15	23	C5	83	N. E.	
May	53.8	-1.2	81	533	35	*	88	86.9	+5.54	1.62	:	13	00	9	17	z.	. ~
Inno	65.0	6 07	80	08	1	*16	0	1 90	6	0 61		c	0.1	ė	G	211	

\* On other dates also. Tindicates trace.

88

93

Extremes.

Meteorological Observations for the Whole State for 1901.

### (CONTINUED.)

WIND.	Prevailing direction,
	Number cloudy
SKY.	Number partly cloudy days.
	Number clear days.
	Number rainy days,
z	Total snow-fall (unmelted).
COIPITATIC	Greatest in 24 hours.
PRECII	Departure from the normal.
	Total.
	Greatest daily range.
	Date.
JRE ENHEIT).	Lowest.
TEMPERATURE (IN DEGREES FAHRENHEIT)	Date.
TEMI N DEGRE	Highest.
(1)	Departure from the normal,
	ylean,
	молтнs.

### NARRAGANSETT PIER.

January	27.7	-1.2	51	6	7	50	36	2.29	-2.72	0.45	00	11	15	į-	6	N. W.
February	53.5	-5.8	41	*18	00	14	24	1.17	-3.40	09.0	œ	രാ	52	-	CS .	W.
March	34.8	+0.4	54	22.	00	2-	98	7.03	+2.45	2.50	Ţ.	12	16	€5	13	N. W.
April	43.8	6.0-	65	53	8	*	53	6.73	+3.20	1.70	:	15	£-	63	£5	Z.
May	52.8	-2.5	F	54	32	27	92	6.55	+5.30	1.82	:	12	16	က	12	αź
June	64.9	4.0-	88	30	45	*17	53	1.74	-0.57	0.95		9	21	4	20	S. W.
July	71.8	+1.9	06	-1	23	22.	55	2.15	-1.17	0.76	:	10	21	က	£-	S. W.
August.	9.69	+0.7	Z.	11	25	53	50	2.84	-1.21	1.00	:	00	15	6	£-	S. W.
September	63.9	+1.2	82	9	41	50	27	3.17	-0.09	0.70	:	11	08	တ	-4	αž
October	51.9	-0.8	0,2	es.	31	98	88	2.64	-1.90	2.10		9	19	2-	20	S. W.

11   10   9    N.W.	11 5 15 S. W.		197 56 112	s. w.
63	6 12		24 113	
1.64	1.78		:	3.50
-1.57   1.64	+5.81		:	
2.79	9 38		48.43	
57	30			36
- 29	55			
6	9		. :	-4
-	*14		-	
64	26			06
-5.9	-2.0		:	
87.2	31.5	47.8		:
November	December	Means	Totals	Extremes

PROVIDENCE.

N. W.	7 N. W.	N. W.		:	:	:		N. W.	:	N. W.	:		: : : : : : : : : : : : : : : : : : : :	N. W.
8 16	13	10 18	:	:	:	:	:	<u>:</u>	:	12 12	:		43 53	
		8	:	:	<u>:</u> :	:	:		:	6 1	:		24 4	:
	တ	13	16	14	4	.:	9	10		4	10			
9	- 01	T.	-	-	:		:	-	:	T.	9		22 105	
0.80	0.80	2.50 7	:	:	0.65	1.36	1.26	2.20	2.00	:	1.79	<u>:</u>   <u>:</u>		
				:						:			:	2.50
-2.10	-2.84	+4.07	+5.26	+3.10	-2.20	-0.30	-1.60	+0.93	0.76	-1.92	+5.57			
1.93	1.00	8.10	8.90	6.85	1.00	2.93	2.56	4.17	2.98	2.43	9.40		52.25	
333	30	25	35	36	30	98	92	9%	32	21	322		:	36
50	14	t-		Ç₹	16	25	*58	98	*29	68	55		:	
87	10	11	75	약	20	28	99	42	35	33	t-		:	8 
6	56	25	85 80 80	75	30	≎5	Ξ	5	11	1	14			
20	45	57	73	28	86	66	91	68	£2.	99	59		:	66
+1.6	7.4	+3.7	0.0	-0.3	+3.5	+4.9	+8.8	+2.7	+2.1	-4.5	9.0-		:	
28.6	24.4	87.8	70.4	57.9	71.7	6.77	74.6	66.5	54.5	38.1	32.6	52.9		
January	February	March	A pril	May	June	July	August	September	October	November	December	Means	Totals	Extremes

\* On other dates also. Tindleates trace.

# Meteorological Observations for the Whole State for 1901.

### (CONCLUDED.)

WIND.	Prevailing direc- tion.
	Number sloudy days,
SKY.	Number partly cloudy days.
	Number clear days.
	Number rainy days.
Z	Total snow-fall (unmelted).
TTATIO	Greatest in 24 hours.
PRECIF	Departure from the normal.
	Total.
	Greatest daily range.
	Date.
Е нвіт).	Lowest.
TURI	
PERA	Date,
TEMPERATURE (in degrees fahrenheit)	Highest.
(1)	Departure from the normal,
	ујези.
	MONTHS.

### SOUTH PORTSMOUTH.

January	97.9		47	17	°F	30	2.2	1.76		1.03		က	17	2	2	N. W	
February	33.4	:	40	16	00	14	33	0.55		0.55	Ë	1	24	25	cs	N. W	ͺ.
March	36.0		活	255	12	9	55	7.40	:	2.58	T.	6	16	==	4	S. W	
April	43.8		69		88	*	88	7.57	:	1.55	:	14	9	4	19	N.E.	
May	53.7	:	2.8	25	36	C\$	30	7.15	:	1.56		11	13	00	10	N.E.	
June	67.4		06	30	40	6	22	1.98		1.47		ಣ	24	4	cs	S. W.	
July	79.5	:	68	*1	53	52	22	2.50	:	0.72	:	0	24	9	-	S. W	
August	70.2	:	<b>z</b>	11	22	\$53	31	2.32	:	0.89	:	ţ-	83	09	9	S. W	
September	64.6	•	£8	9	40	98	22	3.08	:	0.74		00	18	စ	9	S. W.	
October	53.0		33	=======================================	35	58	52	3.43		26.2	:	89			0	W.	

8   N. W.	3 S. W.			:	S. W.
	16	1	<u>:</u>	81	<u>:</u>
6	2		:	74	:
13	6		:	81 200	
33	=======================================		:	81	
T.	T.			Ç5	
1.78   T.	1.89	1		:	20.5
					:
2.15	8.63		:	48.52	:
52	38		:	:	30
_	83			:	
12	9		:		67
· <del></del>	15			:	
63	55		:	:	06
				:	
87.3	30.6		48.4		
November	December	1	Means	Totals	Extremes

AVERAGES, ETC., FOR 1901.

Block Island	78.5	:	98	:	Ø\$		333	47.36		2.69	13	130	134	115	116	S. W.
Bristol	49.0	:	87	:	_	:	31	44.32	:	2.61	15	113	169	88	81	
Klugston	47.3		93	:	6-		38	55.60	:	3.67	83	113	131	104	130	W., S. W.
Narragansett Pier	47.8	:	96	:	4	:	36	48.43		2.50	767	113	197	56	113	S. W.
Providence	52.9	:	66	:	<u></u>	:	36	52.25		2.50	ફેર	105	₹,	43	53	N. W.
South Portsmouth	48.4		06		°;	:	30	48.55	:	3.92	GΣ	81	500	1-	81	S. W.
						-					7	_	-	_	=	

All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

\* On other dates also. Tindicates trace.

### BIRTHS, DEATHS, AND MARRIAGES, 1901.

The value of reliable reports in their various bearings, relating to the records of births, marriages, and deaths, and the items of fact connected therewith, showing the vital movements of the population from year to year, has been so frequently presented in the previous reports of this Board as to need no repetition at this time. It is gratifying, however, to be able to state that, with no exception, persons eminent in social and political science everywhere recognize the indispensable information such reports furnish, and that in every civilized country they occupy places of importance in the government reports scarcely second to any other department.

The forty-eighth report on the registry of vital movements in Rhode Island was completed and issued by the end of the year, and will be found appended to this report.

The work of collecting the data for the forty-ninth report, the enumerating, classifying, arranging, and collecting in tables for the purpose of presenting the various facts in such detail as to facilitate examination and study, has been in progress during the time of making up this report, and affords some facts which may be presented at this time.

Below will be found some of the general results of the registry of births, marriages, and deaths during 1901.

### BIRTHS.

SEX.	PARENT NATIVITY.
Males 5,944	Native* 4,489
	Foreign
Whole number of births.	

<sup>\*</sup>Including all whose fathers were born in the United States, whether the fathers were of foreign parentage or native.

### MARRIAGES.

Native born Groom and Bride	
Foreign born Groom and Bride	
Native Groom and Foreign Bride	457
Foreign Groom and Native Bride	445
Whole number of marriages	3,846.
Native Grooms	Foreign Grooms
DEA	THS.
SEX.	NATIVITY.
Males 4.066	Native 5.654

The following Summary will show the rates, per 1,000 of the population, of births, murriages, and deaths for fifteen years.

1901	25.8	18.2	9.7	17.6	8.8
1900 1	25.9	20.6	.c.	18.4	9.3
899 1	25.6	7.6	8.0	16.2 1	8.1
398	25.9	5.7	9.5		7.9
897 18	26.8	17.6 16.7 17.6	9.5	9.6	8:5
1894 1895 1896 1897 1898 1899	27.3	).1 	8.3	17.0 15.6 15.8	80 10
95 18	25.7 27	19.6 19.5 19.6 19.1	6.1		9.1
94	26.6 25	.5 19	7.1 6	18.7 19.1 18.7 17.4 18.2	8.7
381 86		6 19.		7   17.	
180	26.5		6.9	18.	9.4
1892	25.2	20.1	5.1	19.1	9.6
1891	26.5	18.6	6.7	18.7	9.3
1890	24.7	20.1	4.6	18.5	9.3
1889 1890 1891 1892 1893	24.1	19.0	5.1	18.4	9.5
1887 1888	24.2	20.4	င်္သ လ	18.7	9.3
1887	24.2	19.9	4.5	18.0	9.0
	Birth-rates.	Death-rates	Excess of Birth-rates over Death-rates.	Marriage-rates—persons married 18.0 18.7 18.4 18.5	Ratio of number of marriages

The following table will present the number, parentage, and proportion to total mortality of deaths from several of the most prominent causes of death, in their order of precedence:

		Percentage			Excess of
	Whole No.	of deaths	Pare	entage	Foreign
	of deaths.	from all causes.	Native	Foreign.	over Native.
Consumption	. 844	10.60	238	606	368
Pneumonia	. 742	9.31	324	418	94
Heart Diseases	. 685	8.60	303	382	79
Kidney Diseases	. 505	6.34	224	281	57
Apoplexy and Paralysis	499	6.27	253	246	7
Cholera Infantum	. 401	5.03	132	269	137
Accidents	. 346	4.34	123	223	. 100
Enteritis	. 343	4.31	110	233	123
Cancer	. 306	3.84	145	161	16
Brain Diseases	. 281	3.52	103	178	75
Old Age	. 234	2,94	147	87	60
Bronchitis	. 232	2.91	88	144	56
Diphtheria	. 177	2.22	67	110	43
Influenza	146	1.83	79	67	-12
Typhoid Fever	. 103	1.30	34	69	35
Liver Diseases	. 100	1.26	31	69	38
Diarrhea and Dysentery.	. 96	1.20	35	61	26
Diabetes	81	1.02	48	33	—15
		·——			
All causes	. 7,966	100.00	3,264	4,702	1,438

## LONGEVITY OF DECEDENTS.

			1901.	1900.	1899.	1898.	1897.	1896.
Average age in years of	Male de	cedents.	 35.01	31.81	34.04	34.34	33.71	30.86
	Female	41 .	 38.07	35.58	37.30	36.34	37.06	34.47
	Total	**	 36.51	33.67	35.67	35.31	35.37	32.61

There has been a gradual increase during the last forty years in the average length of life of decedents, taking periods of five years each, running from about twenty-nine and thirty-two one-hundredths years, at the beginning, to thirty-five and thirty-one one-hundredths years at the ending, in 1901.

#### PERCENTAGE OF MORTALITY BY CLASSES.

	1901.	1900.	1899.	1898.	1897.	1896.	1895.
Zymotic diseases	29.81	35.00	32.41	29.53	32.24	32.34	34.02
Constitutional diseases	4.72	4.49	4.57	4.56	4 27	3.80	3.98
Local diseases	42.21	37.65	39.73	41.95	39.63	38.25	37.34
Developmental diseases	17.30	17.68	18.24	18.18	18.78	20.13	19.18
Violence, etc	5.96	5.18	5.05	5.78	5.08	5.48	5.48

### RATIOS OF MORTALITY.

As compared with the year 1900 there was little change in 1901 in the proportional mortality of several of the most important diseases occurring in larger or small numbers every year.

APOPLEXY AND PARALYSIS.—There were 7 less deaths from apoplexy and paralysis in 1901 than in 1900, and 42 more than in 1899. The number of deaths from these causes has been steadily increasing for the past thirty-five years.

Bronchitis.—The deaths from bronchitis were 63 less than in the previous year. Until the last five years there has been a steady increase in the proportionate mortality from bronchitis during the last twenty years, which must be attributed to something more than increased skill in differential diagnoses.

Cancer.—The deaths from cancer were 306 in 1901; 292 in 1900; 292 in 1899; 279 in 1898; and 254 in 1897. Cancer has increased considerably in its proportion of mortality to whole number of causes of death, during the last twenty-five years, and is probably due to increased facilities in diagnosis.

Cholera Infantum.—There were 401 deaths from cholera infantum in 1901, as against 557 in 1899. The proportion to whole number of deaths was 5.03 per cent. For the last 35 years it has been about 6.4 per cent.

Consumption.—There were 844 deaths from consumption, or pulmonary tuberculosis, in 1901. This does not include 26 from

general tuberculosis. Added to this there were 63 deaths from tubercular meningitis, 43 from tubercular enteritis and peritonitis, 7 from tubercular laryngitis, and 7 from tuberculosis of other organs.

A decided contrast will be seen in the proportion of the different diseases, by observation of the diagram shown on page 239. Here, considering the condition for 35 years, it will be seen that consumption has exceeded pneumonia more than sixty-two per cent. as a cause.

DIARRHEA AND DYSENTERY.—The mortality from these diseases was 16 less in number than in the previous year, or 96 in 1901, and 112 in 1900.

DIPHTHERIA.—This disease had a mortality of 177 in 1901, which was 13 less than in 1900; 150 of these were in Providence county, 84 being in Providence city. The percentage to the whole number of deaths was 2.22.

Fevers, Malarial.—These had a mortality of 23 in 1901, and 21 in 1900.

Fever, Typhoid.—There were 103 deaths from typhoid fever in 1901, and 127 in 1900. Typhoid fever, as a disease and as a cause of death, has gradually lessened in both proportions, as compared with other important diseases, during the last 20 years.

Heart, Diseases of.—The deaths from diseases of the heart in 1901 numbered 685, against 701 in 1900. Diseases of this organ have been gradually increasing during the last thirty-five years. See Table LXXVIII, page 245, Reg. Rep.

INFLUENZA.—The number of deaths reported as from this disease in 1901 was 146, or 109 less than in 1900. During the year 1892 there were 366 deaths from this cause.

Kidneys, Diseases of.—The number of deaths from diseases of the kidneys in 1901 was 505, the number in 1900 was 516. Diseases of these organs have been gradually assuming large importance as causes of death during the last thirty-five years. The ratio of mortality for five years, 1896–1900, was nearly six times as large as the ratio for the years 1866–70. See Table LXXXI, page 255, Reg. Rep.

PNEUMONIA.—The number of deaths caused by pneumonia in 1901 was 742, as against 966 in 1900. Pneumonia has gradually increased in importance as a cause of death for the last thirty-five years. See Reg. Rep., Table LXXXVI, page 265.

Scarlet Fever.—The number of deaths in 1901 was 21, 13 less than in 1900. The proportion was 0.3 per cent. of the whole number of deaths. Scarlet fever has largely decreased in epidemic prevalence and proportion of mortality during the last fifteen years, as compared with previous periods of fifteen years each.

SMALL-Pox.—There were 5 deaths from small-pox in 1901, in 1900 there was one, two in 1894, none in 1893, and four in 1892. The diminution of cases, and the decrease of mortality as a consequence, has been quite remarkable during the last fifteen years. The efficacy of vaccination has had remarkable endorsement.

Diagram exhibiting the comparative mortality by absolute number of deaths from eighteen principal causes of death in Rhode Island for thirty-six years, 1866-1901.

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25																			
		1	ı																
15																			
14																			
<u> </u>				1	1														
12																			
1																			
10					1														
6																			
- · ·							_												
r- ∞						ı	ı	i											
6 8									ı	ı	ı	1							
r- ∞												ı	1	ı					
9 2														1					
6															1		,		
1 2 3 4 5 6 7 8																1	1	ı	
1 2 3 4 5 6 7 8	PTION		antum	sases of	nd Paralysis		ases of	iseases of	er				phoid, etc	nd Dysentery.			·····ngh.		
5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	CONSUMPTION	Pneumonia	Cholera Infantum	Heart-Diseases of	Apoplexy and Paralysis.	Aecidents	Brain-Diseases of	Kidneys—Diseases of	Scarlet Fever	Cancers	Diplitherla	Bronchitis	Fevers—Typhoid, etc	Diarrhoea and Dysentery.	Сгоир	Child-birth	Whooping Congh	Measles	

## REPORT OF CONTAGIOUS DISEASES DURING 1901.

Since the year 1893 a system of reports of contagious diseases which have been reported to the health officers in the various towns and cities has been kept up by means of reports on circular postal cards to the State Board. This makes it possible to obtain a fairly comparative observation of the prevalence of these diseases during the several months, and in the course of the year.

It is admitted that not all cases of these diseases have been reported to the health officers. The physicians in two or three of the towns and cities do not make any effort to report their cases, owing to the inefficiency of the health officer and the apparent uselessness of making such reports, since no action, or only a tardy action, is taken to avail the public of the advantages accruing from the knowledge of the existence of these diseases. However, the failure to report being about the same every year, a comparison may be made.

By observation of the following tables it will be noted that the number of cases reported for *scarlet fever* were greater in 1895, and that during the year 1898 there were less than in any previous year.

The greatest prevalence of *diphtheria* during the past five years has been in 1896, the epidemic of 1895, continuing from the fall months, subsiding after January of the year following.

There have been fewer cases of typhoid fever reported each year since 1893 until 1898, in which year 251 cases were reported, an increase of 21 over the previous year. Since that time the number of cases of this disease has been steadily on the increase, the number for the year 1900, 475, being the largest since 1894. As this disease

may be introduced by milk or water supplies, and its prevalence cannot be determined until after the public have received the infection for a period of at least fourteen days, allowing seven days for ineubation of the disease and seven days for the physician to become positive in his diagnosis, a few days must elapse before the health department is aware of the unusual prevalence and be prepared to investigate any cause which may be ascertainable. Therefore a sudden rise in numbers might occur in any one month of a year which would raise the total above the average.

# DIPHTHERIA FOR 1901.

CITIES AND TOWNS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For year.
Barrington Bristol Warren	0 0	0 1	0 3 1	0 2 0	0 0 0	0 0	0 0	0 0	0 0	0 0	0	2 0	0 8 1
Coventry East Greenwich *West Greenwich	0	0	0 2	0	$\frac{1}{2}$	0	0	0	0	1 0	0	2 0	4 5
Warwick	5	0	0	0	0	0	0	1	2	9	5	12	34
Jamestown Little Compton Middletown Newport New Shoreham Portsmouth Tiverton	0 0 0 1 0 0	0 0 0 4 0 0 0	0 0 0 1 0 0 1	0 3 0	0 0 0 0	0 4 5 0 1	0 0 2  0 0	0 0 0 0 	0 0 3 0 0	0 1 5  2 0	0 0 8 	0 0 1 	0 0 5 33 0 3 2
Burrillville Central Falls Cranston Cumberland East Providence.	0 3 2 5	0 4 0 1	0 4 0 1	0 0 0 0	4 0 0 0	1 0 1	0 0 0	0 1 0 1	0 2 0 1	9 3 2 5	5 2 4 1	0 1 1 3	18 21 9 19
Foster	0 0 0 3 0	0 0 0 0	0 0 0 4 0	0 0 0 4 0	0 0 0 1 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0 0	0 0 2 0 0	0 0 0 2 2	0 0 0	0 0 2 14 2
North Smithfield Pawtucket Providence Scituate Smithfield	21 26 0 1	7 38 0 0	12 52 0 0	4 17 0 0	0 32 0 0	1 47 0	0 16 0	0 4 16 0 0	1 0 12 0 2	0 6 32 0 0	1 12 79 0 0	3 9 34 0 0	5 76 401 0 3
Woonsocket  Charlestown *Exeter Hopkinton					0	0	0	0	0	0	0	0	0
Narragansett North Kingstown Richmond South Kingstown Westerly	0 0 0 0 0 4	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0 3	0 0 0 0 0	0 0 0 0 1	0 0 0 0	0 0 0 0 0	0 0 0 0	0 0 0 0	0 1 0 0 0	0 1 0 0
Total cases	71	55	81	31	$\frac{3}{43}$	$\frac{1}{61}$	19	23	23	77	121	70	675
Total cases 1900 '' '' 1899 '' '' 1898 '' '' 1897 '' '' 1896 '' '' 1895 '' '' 1894	56 18 54 103 117 62 35	32 23 46 47 76 33 17	29 22 31 67 74 31 31	28 11 30 59 108 26 22	23 19 28 61 70 50 41	30 25 19 48 49 35 32	26 16 13 38 53 55 7	21 14 6 59 45 52 10	30 23 12 77 69 103 23	53 35 34 147 121 137 33	78 41 39 117 114 227 32	100 51 31 70 125 164 58	506 298 343 893 1021 972 341

<sup>\*</sup> Has no health officer.

# Scarlet Fever for 1901.

CITIES AND TOWNS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October,	November,	December.	For year.
Barrington Bristol Warren.	1 1	0 0	1 4 2	1 8 0	$\begin{bmatrix} 1\\2\\0 \end{bmatrix}$	0 0	0 4	0	0 3	0 4	6	0 0	4 32 2
Coventry East Greenwich *West Greenwich	0	0	0 6	0 5	0	0	0	0	0 0	1 1	0	0	1 13
Warwick	2	0	4	5	6	6	2	1	1	2	2	4	35
Jamestown Little Compton Middletown Newport New Shoreham	0 0 0 8 0	0 0 0 2 0	0 0 0 4 0	0 0 7 0	0 11 0	0 4	0 0 1	0 0 2	0 0 2	0 0 1	0 1 3	0 7 3	0 0 8 48 0
Portsmouth Tiverton	0	20	0		1	0 5	0 2	0	0	0	0	1 0	3 10
Burrillville Central Falls Cranston Cumberland East Providence.	0 3 3 11	0 6 4 5	0 1 0 3	0 4 4 2	2 0 1 0	6 1 2	0 0 5	0 0 3	0 1 5 2	0 12 8 3	0 10 5 0	0 2 4 1	2 45 35 37
Foster. Glocester. Johnston Lincoln	0 0 0 0	0 0 0	0 0 0 0	0 0 0 1	0 1 0 1	0 0 0	0 0 0	0 0 0 0	0 0 0	0 0 1 0	0 0 0 0 2	0 0 0	0 1 1 6
NorthProvidence North Smithfield Pawtucket	<u>6</u>	 5	0	0	0	1 3	1 <sub>2</sub>	2 5 1	3 0 11	21 0 9	4 1 5	1 5 9	33 11 56
Providence Scituate Smithfield	22 0	23	27 0 0	19 0 0	24 0 0	25 0	12 0	11 1 0	4 0 3	32 0 8	30 0 6	16 0 6	234 1 24
Woonsocket													
Charlestown *Exeter				•••••	0	0	0	0	0	0	0	6	6
Hopkinton Narragansett North Kingstown	0 0	0	 0 0	0 0	0	0	0 0	0	0 0	0 0	0	0	 0 0
Richmond South Kingstown	0	0	1 3	0	0	0	0	0	0	0	0	1 0	2 5
Westerly	0	0	0	1	0	0	0	0	0	0	1	1	3
Total cases	59	48	59	59	52	54	29	26	35	94	76	67	658
Total cases 1900	88 33	55 46	68 48	119 20	54 43	53 30	20 25	20 23	22 65	49 68	76 91	58	682 607
" " 1898	66	57	47	40	58	48	15	25	26	79	66	115 45	572
" " 1896	80 78	47 97	47 61	51 72	34 48	57 30	41 29	35 28	42 33	77 46	53 92	63 87	629 701
" 1895 " 1894	168 133	132 95	118	123 70	69 71	78 53	56 33	47 33	55 58	63 77	87 103	$\begin{array}{c} 91 \\ 122 \end{array}$	1087 939

<sup>\*</sup> Has no health officer.

# Typhoid Fever for 1901.

CITIES AND TOWNS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For year.
Barrington Bristol Warren	0 1	0	0 1 0	0 3 0	0 1 0	0	0 2	0 0	0 2	0 0	0 1	0 0 0	0 11 0
Coventry East Greenwich *West Greenwich	0	0 1	0	0 0	0	0	0	0	0	0	0	0	$0 \\ 2$
Warwick	0	0	0	0	0	0	0	0	0	1	0	1	2
Jamestown Little Compton Middletown Newport New Shoreham	$\begin{bmatrix} 0 \\ 0 \\ 0 \\ 1 \\ 0 \end{bmatrix}$	0 0 0 3 0	0 0 0 3 0	1  0 1 0	0 0 0 0	$\begin{array}{c} 1 \\ 0 \\ 2 \end{array}$	1 0 0	0 0 7	0 0 10	0 0 11	0 0 7	 0 1 10	1 2 1 55
Portsmouth Tiverton	1 0	0	0 0	0	0	0	0	2 0	0	0	0	2 0	$\begin{array}{c} 0 \\ 5 \\ 1 \end{array}$
Burrillville Central Falls Cranston Cumberland	0 0 1 0	0 1 2 0	0 0 0	0 0 0 0	0 0 1 0	0 0 0	0 0 0	0 1 0 1	0 0 1 1	0 1 0 0	0 2 1 0	0 1 1 0	0 6 7 2
East Providence. Foster Glocester Johnston	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0	0 0 0 0	0 0 0	0 1 0	0 $4$ $0$	0 5 0
Lincoln North Providence North Smithfield Pawtucket		0 1	0	0	0 0	0	0	0 0 1	0 0 4	$\begin{bmatrix} 1 \\ 0 \\ 0 \\ 4 \end{bmatrix}$	$\begin{bmatrix} 0 \\ 0 \\ 0 \\ 4 \end{bmatrix}$	0 0	1 1 0 16
Providence Scituate	11 0 0	8 0	10 0 0	7 0 0	6 0 0	7 0	3 0	$\begin{bmatrix} 7\\0\\0 \end{bmatrix}$	12 0 0	22 0 0	25 0 0	$\begin{bmatrix} 21 \\ 0 \\ 1 \end{bmatrix}$	139 0 1
Woonsocket			 			ļ	 		 				
Charlestown *Exeter					0	0	0	0	0	0	0	1	1
Hopkinton Narragansett	0	0	0	0	0	0	0	0	0	0	0	0	0
North Kingstown Richmond	1 0	0	$\begin{bmatrix} 0 \\ 0 \end{bmatrix}$	0	$\begin{bmatrix} 1 \\ 0 \end{bmatrix}$	$\frac{1}{0}$	1 0	0	0	$\begin{vmatrix} 0 \\ 1 \end{vmatrix}$	$\begin{vmatrix} 0 \\ 0 \end{vmatrix}$	$\frac{0}{2}$	4 3
South Kingstown	0	0	0	0	2	0	0	3	5	6	0 2	0 2	16
Westerly	1	0		2	1	. 0	1	1		1	<del></del>	$\frac{z}{-}$	11
Total cases	19	17	14	14	12	12	8	24	35	48	43	47	293
Total cases 1900	12	7	11	6	10	16	9	27	71	171	83	52	475
" " 1899 " 1898	$\begin{vmatrix} 7\\20 \end{vmatrix}$	$\begin{vmatrix} 8\\20 \end{vmatrix}$	13 33	5   18	10 10	10	24	40 16	89	50 39	32 25	38 28	326 251
" " 1897	18	9	6	8	12	9	5	21	33	39	35	35	230
" " 1896 " 1895	33 104	17 35	$\begin{vmatrix} 21 \\ 15 \end{vmatrix}$	14 18	8	13 13	19 30	46 25	65 34	31 46	31 53	26 90	325 471
" " 1894		27	54	23	25	14	13	54	59	76	55	31	492
			4 99		h la	1 - 00							

\* Has no health officer.

# TUBERCULOSIS.

Examinations of Sputum for Tuberculosis, from January 1, 1901, to January 1, 1902.

Clinical Diagnosis.	Total.	Tubercle Bacilli present.	Tubercle Bacilli absent.	Past cuses in family.	Present cases in family.
Bronchitis	121	31	90	22	6
Bronchitis, chronic	35	11	24	14	1
Tuberculosis, pulmonary	465	255	210	103	4
Suspected tuberculosis, no diagnosis given	39	12	27	6	
Tubercular laryngitis	14	7	7	4	
Tubercular meningitis	1		1	1	
Hemorrhage of lungs	1		1		
Asthma	5	2	3		
Pneumonia (after)	12	2	10	3	
Influenza	2	1	1		
Pleurisy	12	3	9		
Catarrh	4	1	3		
Trachetis	2	1	1		
Pharyngitis	1		1		
Scrofula	1	1			
Typhoid fever (after)	2		2		
Endocarditis	. 1		1		
Pyelitis	1		1	1	
"Slow fever"	1		1		
Total	720	327	393	154	11

## TUBERCULOSIS.

Number	of	exam:	inations	of sput	tum		720
Number	in	which	tubercle	bacilli	were	found	327
Number i	in	which	tubercle	bacilli	were	not found	393

During the year there were 720 specimens of sputum submitted for examination, with the supposition on the part of the attending physician that tuberculosis might be a factor in the causation of the symptoms of the patient.

Of these cases, in 465 the clinical symptoms present were sufficiently distinctive to lead the physicians to believe that tuberculosis of the lungs was present. In 255 of these cases the examination of the specimen of sputum showed the presence, in greater or lesser quantity, of tubercle bacilli. This would make 55 per cent. of cases where the clinical diagnosis coincided with the bacterial findings, while in 210 cases, or in 45 per cent., the bacilli of this disease were not found. While this negative result is of value, yet it does not carry the weight of a distinct negative, as to the actual presence of the disease, for it is possible to obtain from the patient a specimen of sputum which is composed of only the saliva and secretions from the larynx, and containing none from the air passages in the lungs. The organisms may also be present at times, in the lung, either lying dormant or encapsulated, and will not be discharged into the air passages, and become a part of the sputum, until a degenerative process is set up which breaks down the tissues about the organisms and sets them free.

In the 14 cases of tubercular laryngitis 7 were positive. The application of this method of diagnosis is especially valuable in this form of the disease, inasmuch as the appearance of the larynx may indicate the presence of ulcerative processes, and the formation of tubercles from other causes.

It is of especial value in these cases, for the organism may not as yet have invaded the lung, but if the cases are neglected, they may readily be carried to the lung or intestine, and there propagate the disease.

It is of interest to note that, of 181 cases of chronic and acute bronchitis, in 42 cases the diagnosis was erroneous, and the presence of tuberculosis was established in the bronchi, if not, also, in the lungs. The constitution of the patient, however, being suffi-

ciently strong, as yet, to prevent the invasion of the organisms into large areas, the symptoms present were not sufficiently distinct, or alarming, to warn the physician of the dangerous element which was present. In 43 instances, where the diagnosis of bronchitis was made, there had been other cases of the disease in the family.

# RECORDS OF ALL CASES OF DEATH BY CONSUMPTION IN THE STATE.

As a part of the investigation of the subject of tuberculosis in man, a card catalogue record of all deaths from pulmonary tuberculosis has been arranged. At present this data is available from the commencement of the year 1890, and is completed to date. This division of the work affords much interesting material for study. The number of deaths for the different years was as follows:

Deaths	sin	1890	911
"	"	1891	814
"	"	1892	848
"	"	1893	812
"	"	1894	825
"	"	1895	839
u	"	1896	846
"	"	1897	777
"	"	1898	886
"	"	1899	972
"	"	1900	987
"		1901	990
Т	otal	10	,507

These 10,507 cases are recorded on cards with the following data: Name, address, age, color, married, single, or widow, name before marriage, and date of death. By collecting the names in this way it is observed that certain names recur at varying periods of time, and by looking up the individual case further it will be found that

this death has occurred in a family where previous deaths from consumption have taken place, the address in many cases being the same.

In many instances there were two cases occurring in the same family; in other instances, three and four cases.

Should the records go back for more years, a larger number would be discovered.

In addition to the card catalogue of the names of the decedents, a separate card catalogue of the *premises* where the death occurred has been kept, and thus it is possible to ascertain when any particular house may have, by chance, been infected with this disease. It is further possible to ascertain if more than one ease has occurred in any one house.

# EXAMINATION FOR THE CONTROL OF DIPHTHERIA.

During the year 1901 there were 1,638 cultures examined for the presence of diphtheria. Of this number the Klebs Loeffler bacillus of diphtheria was found in 564 cases, 407 of these showing a pure, unmixed culture of Klebs Loeffler, and 157 a mixture with micrococci. The bacilli were absent in 1,074 cases.

The membrane in the suspected cases was located on the tonsils in 473 cases, on the pharynx in 19 cases. There were other cases already in the same family in 282 cases.

The duration of the disease before the disappearance of the bacillifrom the culture is shown in the table.

In the 2 cases where it remained for one day only, it may be explained that although there may have been an error in the microscopic examination, yet it is possible that the second culture may have been from the secretions on the tongue and not from the back of the throat.

The patient usually recovers his strength and the symptoms of the disease may subside in a few days, and yet the bacillus of diphtheria remain growing in the throat. The patient having had the disease has become immune against the toxine produced by the bacilli. These bacilli, although attenuated, may last for a long time in this throat. If they are transferred to the throat of another person whose system is non-resistant against the invasion or growth of this organism, as with all other pathogenic organisms, they may take on renewed strength and become of a virulent character in the second throat.

DIPHTHERIA.

Countral District D						RESULTE	LTB.						Location	TION					Den	Венатіом.	.;	
Total number   S		8911						-	 Ung	satis-							linial i					
Sibilitis.  Sign 143 29 14 158 129 7 7 10 1 4 140 0 4 3 3 1 14 25 82 112 5	Ceinical Diagnoris.	pprimary cuite	Total number			K. L. absent				No growth.	.elienoT	Pharynx.	pharynx.	Other parts o	Хопе вееп.	None given.	other cases in	One day.	Few days.			One month or more.
-S. D	'onsilitis	8	_ #_	8			8	7	 0	7			4	63	31	7	123	83	113	1 50	-	1 :
S. D. D. S. D. D. S. D. D. S.	'ollicular tonsilitis	123	82	22	7	95	99	9						-	-21	12	7	39	13	00	7	:
S. D	Jiphtheria	336	182	132			12							22	8	47	92	110	174	81	38	¢3
S. D	haryngitis	35			63	33	22	0	 1 0	4					23	co	9	17	=	C3	~	:
y     3     1     2     6     3     1     0     0     0     14     1     2     3     4     2     3       y     7     1     1     0     6     0 </td <td>o diagnosis—S. D</td> <td>140</td> <td>24</td> <td>17</td> <td></td> <td>91</td> <td>93</td> <td>6</td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td>-</td> <td>23</td> <td>105</td> <td>6</td> <td>8</td> <td>901</td> <td>- <del></del></td> <td>:</td> <td>:</td>	o diagnosis—S. D	140	24	17		91	93	6					_	-	23	105	6	8	901	- <del></del>	:	:
33 10 7 3 23 18 3 2 0 0 0 14 1 2 10 6 4 10 16 7 7 3 23 18 3 2 0 0 0 0 6 7 14 1 2 10 6 4 10 16 7 7 7 1 1 1 0 6 6 6 0 0 0 0 6 7 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	roup	6	co		21	9	್	_				_	1	C3	8	:	:	77	কর	m	:	:
265         16         9         7         249         191         20         6         19         4         6         6         19         4         6         11         148         22         24         191         20         6         19         4         6         6         19         4         6         6         11         148         22         28	ore throat	83	10	7	- 20	23	18	က				:	-	C1	10	9	*7	20	16	1-	<u></u>	:
265 16 9 7 249 194 20 6 19 4 6 143 139 185 222 92 835 646 54 27 52 16 40 473 19 44 33 130 185 282 294 497 51	carlet fever	7	-		0	9	9	0				:	:	:	:	-	:	_ C1	7	:	-	:
489 250 185 65 239 176 16 11 10 14 12	recautionary	265	91	-6 -				30			:	:	:	:	:		148	<u>:</u>	:	:	- <u>:</u>	:
489 250 185 65 239 176 16 11 10 14 12	Totals	1,149	314	222										33	130	185	282	294	497	- 19	37	6,1
489 250 185 65 239 176 16 11 10 14 12																						
	econdary cultures	684	250	185					 		:	:	:	T		:	=		<u>:</u>	:		

Total number of cultures examined, 1,638.

Number of	cases in	which	2nd	culture	was	taken		 122
4.6	4.6	64	3d	44	"	**		 55
4.6	44	44	$4 \mathrm{th}$	6.6	"	"		 36
**	44	"	5th	4.6	4.6	64		 15
**	4.6	"	$6 \mathrm{th}$	4.6	4.6	"		 12
"	6.6	"	$7 \mathrm{th}$	44	4.6	4.6		 6
ee	**	"	8th	"	66	"		 5
"	4.4	44	9th	44	4.6	"		 1
46	66	44	10th	44	66	4.4	,	 2

## Duration of Disease in Secondary Cultures.

One day	2	cases.	
Few days	24	6.6	Number of cases in which secondary
One week	36	44	cultures were taken and patient
Few weeks	106	44	was not ill
Month or more	61	"	

Of the 314 primary cultures found to be positive, in 79 cases the presence of the bacilli had already been found in the throat of some other member of the family.

One case started December 21, with a suspicious case in family, and membrane on larynx; sent in as a "cautionary culture." K. L. found and continued until the 9th culture, February 12, 1901—57 days.

# EXAMINATION FOR WIDAL REACTION IN TYPHOID FEVER CASES.

Continuing the work commenced during the previous year for the testing of blood specimens from cases of suspected typhoid fever, its value was shown by advantage taken of the opportunity for the Widal test by physicians throughout the State.

While confirming a diagnosis of typhoid fever in cases where the symptoms were sufficiently distinctive, the test was also of service in establishing the presence of the disease in many cases that were obscure and in which the symptoms were similar to other febrile conditions extending over a period of time.

The following table gives the number of examinations made during the year and also those of 1900, and also the results found:

1900.	1901.
Positive	70
Negative	102
Doubtful 8	3
·	
Total142	175

# WORKING OF THE MEDICAL PRACTICE ACT.

## AMENDMENT OF THE MEDICAL PRACTICE ACT.

The original bill governing the practice of medicine in this state was passed at the January session of the legislature in 1895.

The law provided, under Chapter 1353 of the Public Laws and Chapter 165 of the General Laws, as revised in 1896, as follows:

- SECTION 1. That a register of physicians be kept, by the city and town clerks, of all physicians who are duly qualified and who are registered in the respective towns.
- SEC. 2. Provided that the practice of medicine is unlawful without registration of certificate of authority, and provided also for the registration of data as to the person registering.
- SEC. 3. Specified that the State Board of Health should issue the certificate to physicians who possessed the following qualifications:
- 1st. A diploma from a reputable and legally chartered medical college, endorsed as such by the State Board of Health.
- 2nd. Satisfactory evidence from the person claiming the same that such person was reputably and honorably engaged in the practice of medicine and surgery in the State prior to January first, eighteen hundred and ninety-two.

Any person not possessing the diploma and not having been in practice in this State three years prior to its passage should be required to submit himself to such examination as said Board may require, and such person if qualified should receive the certificate entitling him to practice medicine. Also that a fee of ten dollars should be paid for each such examination. Also that two dollars should be paid for a certificate issued under either three of the conditions provided.

SEC. 4. Provided that no itinerant doctor may register.

- SEC. 5. Provided that the Board may refuse to issue a certificate, or revoke a certificate issued, when the individual was guilty of unprofessional conduct likely to deceive and defraud the public. Also provided for appeal from the decision to the supreme court.
- SEC. 6. Provided that no discrimination shall be made against any school or system of medicine, nor against surgeons of the United States Army or Navy or the Marine Hospital Service; nor was the law to apply to physicians who were legally qualified to practice in another State but who were called to see a particular case in this State, but who did not open an office in this State where they might receive calls.
- SEC. 7. Provided that it should be the duty of the State Board of Health to bring cases of infringement of the law to the attention of the courts.
- SEC. 8. Provided that any person living in this State, or any person coming into this State who should practice medicine or surgery, or attempt to practice medicine or surgery in any of its branches, or who should perform or attempt to perform any surgical operation for or upon any person within the limits of this State for reward or compensation, in violation of the provisions of this law, should, upon conviction thereof, be fined fifty dollars, and upon each and every subsequent conviction should be fined one hundred dollars and imprisoned thirty days, or either or both, in the discretion of the court; and in no case, where any provision of this law has been violated, should the person so violating be entitled to receive compensation for services rendered. To open an office for such purpose, or to announce to the public in any other way a readiness to practice medicine or surgery in this State, was to engage in practice of medicine within the meaning of the law.

Under this law all physicians who had been practicing in this State and all who subsequently located here complied with the law and were duly registered.

A few exceptions to this rule were arrested and prosecuted before the courts, and when convicted were fined.

It was found, however, after the law had been in force six years,

that certain persons had been enabled to practice medicine and surgery upon the people of the State without a certificate, and owing to the form of the law were able to evade the penalties for so doing.

The mistakes and negligence of a sect called Christian Scientists had caused much suffering and distress and death, without any care or assistance by available medical or surgical remedial measures.

Certain persons had endeavored to practice by offering to do so free from fee or reward, obtaining their compensation through the sale of remedies, the price of which would be equal to or greater than the price which would be charged for advice and medicine combined.

Acting upon the experience acquired, a law was framed which should include all forms of attempts to assume the responsibility of the medical and surgical welfare of the public, and should include all acts in which the responsibility of life and death was assumed by an individual.

This was necessarily intended to reach a large class of charlatans who fed not only upon the public purse but upon the feelings and strength of the gullible sufferers who, yielding up their hoardings, or mortgaging their hard earned property, sacrificed their all upon the unfounded promise of a stranger that a cure would be effected—no matter what the malady nor how near to death's door the patient might be. Innumerable instances were and are now constantly brought to the notice of the department. Sums of money reaching up into the many hundreds have been filched from laboring men by charlatans who have left their patients without means of support for themselves and large dependent families, the patients dying within a short time.

Necessarily a law covering this class must include the faith healer, the "Little Feather Girl," the hoodoo doctor, and the Christian Scientist.

A bill fully covering all these conditions was presented, and met with a flood of opposition by this new and strange sect who claimed that in the land of Roger Williams, where free and religious liberty is the foundation, base, pillar, and pilaster of all who dwelt therein, any one who had a religious belief, no matter how disastrous to self and the community, should be permitted to undertake to care for any ills which might come to any one believing, also to deny the existence of decaying humanity, to declare the impossibility of death, and to allow suffering and neglect to follow in their wake.

The secretary of the Board appeared in favor of the bill before the committee having charge of the hearing of the bill, while many people, some of them socially respected, were present in opposition to the bill. The committee did not see its way clear to recommend the bill in the form presented. The mind curists did not object to a correct form of medical supervision for others than themselves, and with the compromise that their sect or others believing likewise might be exempt from any legal control, the bill was amended and passed.

The provisions of the amended medical practice bill which was passed at the November session of 1901 was a modification of the existing law only in certain sections, as follows:

SEC. 3. Authority to practice medicine under this chapter shall be a certificate from the state board of health, and said board shall, upon application, after examination, issue a certificate to any reputable physician who intends to practice medicine or surgery in this state and who shall present himself before the state board of health and pass in a satisfactory manner such examination as said board may require. Any physician so presenting himself shall pay to said board the sum of ten dollars (\$10) for each examination, and said fee shall in no case be returned, but shall be applied to pay the expenses of said board of health in conducting such examinations. Each certificate so issued shall be signed by the president and countersigned by the secretary of said board and shall be attested by the official seal, and not more than two dollars (\$2) shall be charged for a certificate.

It will be noticed that a change from the original law provides for the issuance of a certificate only on passage of a successful examination before the Board. No diploma is required, and no certificate is to be issued simply upon the presentation of a diploma, no matter in how good standing the college issuing the diploma may be before the Board. As had been the experience of other States requiring an examination, it had been found that many students who had graduated from schools in good standing as rated before all boards, and had received diplomas, were unable to pass the examinations presented to them and in which a majority of applicants were successful. This suggested something radically wrong with the issuance of diplomas. On the other hand many students who had graduated from schools which had no-standing before the board, and which gave a limited course of instruction, proved individually to have acquired sufficient information from a poor course to pass the requirements of States which required an examination for the issuance of a certificate.

The law as changed placed the merits of the condition upon the individual applicant to be decided by the board, which is responsible to the public which it represents, and not upon favoritism or conditions which might prevail at the graduation of an individual from any or all colleges.

This section also disposed of the possibility of a successful application of a "time limit" man, or one who had been in practice three years before the enactment of the original law. After six years all who unfortunately were entitled to that privilege had been accommodated. All the original herb doctors, quacks with patent cure-alls, men with specific remedies for all diseases which man has, men who were willing to take any responsibility—none of these men could after this period be deprived of a distinct and honest (?) business and thus be deprived of his bread and butter and his support, no matter how much the confiding public might be imposed upon by this support.

Section 5 was so modified as to provide that a certificate might be revoked from one who had been guilty of violating the laws of the state, or "for any fraud or deception committed in obtaining such certificate." This was found desirable as the result of the revocation of a certificate of a man who had borrowed a diploma from a physician who had the same name and who had attended the same college. This man had continued in practice for over a year, and while numer-

ous reports that his methods of practice showed an ignorance of medicine which was evident to the laity, had been received, yet the Board was not in possession of evidence until he had imposed upon the public for over a year. The certificate was revoked, and the man departed to other fields.

Another change provided that revocation might follow "for any other cause which in the opinion of said board shall render the holder of such certificate an unfit person to practice medicine in this state."

This would probably include persons who by their repeated demonstrations of ignorant practice might prove a serious menace to the people upon whom they practiced. Also such persons who by their personal habits of intemperance or immoral conduct, or by illegal practices from a medical standpoint, might be a source of detriment to the public weal and health.

This section also conferred upon the individual members of the Board the power and dignity of administering oaths to any witnesses in proceedings brought before the Board, empowered the Board also to summon witnesses by subpœna and to compel such witnesses to attend and testify in the same manner as witnesses are compelled to appear and testify in either division of the supreme court. It also authorized the Board to compel the production of "all papers, books, documents, records, certificates, or other legal evidence that may be necessary or proper for the determination and decision of any question," and provides also a penalty for non-compliance with these demands, providing also for punishment for contempt in like manner as before the supreme court.

These requirements and penalties appear to place in the hands of a board, not versed in legal decisions and actions, almost an arbitrary power, and at first thought would appear to be too general and too inclusive.

With the present composition of the Board there should be no fear that this privilege or authority would be abused or improperly used, and it would not be the best policy of the Board to take improper or autocratic advantage of these privileges, for by so doing it might defeat the successful administration of its work in this line.

Yet cases had occurred in the form of hearings before the Board where this authority was necessary for a true presentation of the evidence presented before the Board.

If at any time the authority is abused amendments would and should readily be enacted, revoking this power.

In this amended law provision was made for *subpane duces tecum*, upon the suggestion of the secretary of the Board. Also false swearing would be deemed perjury, with the attendant penalties.

Provision was also made that any decision or ruling against the defendant, applicant, or practitioner revoking his certificate, or refusing the issuance of a certificate, should be objected to before the supreme court within a specified time, namely within ten days after receiving notice of the decision of the Board.

Section 6 was so modified as to provide that a physician legally qualified in another State should practice on the individual case in this State *only* when in consultation with a qualified physician registered in this State.

This provision was necessitated by the fact that certain charlatans residing in a neighboring State, and some of them very near the border, were in the habit of visiting all parts of the State, imposing their methods of extortion and malpractice upon the gullible people in this State, and as they came to see "only individual cases" although these might be numerous, and although they opened no office in the State, yet made appointments to meet their patients at the residence of the victim.

Previous to the changes in the law made at this time (1901) section 7 had been modified so as to require the secretary of the Board to be the prosecuting officer instead of the Board as a whole, and also provided that the Secretary should not be required to give surety for costs. This made it specific as to who should bring the case before the courts, and did not leave it with the chance of the police department being the prosecutor or not as it might please that department.

Much indecision has always been associated with the law of almost

every State as to what constituted the practice of medicine, therefore section 8 was materially modified to include as far as would be allowed by the legislature the conditions or acts which constituted the practice of medicine.

It was provided that anyone receiving compensation for their services for relief or aid in the form of the practice of medicine and surgery, or anyone with the intent of receiving any bonus, gift, or compensation for services rendered, would be considered as engaged in the practice of medicine and surgery.

It also provided that if this compensation was received directly or indirectly the offence was equally culpable. This was necessitated by the action of certain persons who would open a drug store, or advertise "consultation free," and receive their compensation indirectly through the sale of some article or articles or drugs from the store where the consultation was held.

Section 8 also provided that the use of the title of doctor or any abbreviation thereof, or M. D., or any other title or designation implying the practice of medicine, "or in any other way," before the public, would be considered guilty of a misdemeanor if the person was not duly registered to practice in this State.

With these amendments and modifications of the law as originally established it was hoped that a class of irresponsible charlatans might be held in check from their schemes of extortion and in their practices of causing continued and unrelieved suffering. Of course those who offered to cure disease or attempted to do so by spiritual or imaginative means could not be included in this law.

The full text of the law as amended will be found in the Appendix.

ATTEMPT TO CREATE AN EXAMINING BOARD OF OSTEOPATHY.

At the January session of the legislature a bill was introduced providing for the creation of a board of examiners for the issuance of licenses to practice osteopathy. This bill also provided that the practice of osteopathy did not constitute the practice of medicine within the meaning of the existing medical practice act.

The resolution was as follows:

### AN ACT REGULATING THE PRACTICE OF OSTEOPATHY.

It is enacted by the General Assembly as follows:

- SECTION 1. The system, method, or science of treating diseases of the human body commonly known as osteopathy is hereby declared not to be the practice of medicine by drugs within the meaning of Chapter 165 of the General Laws and of any acts in amendment thereof or in addition thereto, and not subject to the provisions thereof.
- Sec. 2. Any person having a diploma regularly issued from any legally incorporated and regularly conducted school of osteopathy, who shall have been in personal attendance as a student at such school for at least four courses of study of five months each before graduation, shall have authority to treat diseases according to such system and collect fees for such service: *Provided*, that after presenting his diploma to the examining board hereinafter mentioned, and having passed a satisfactory examination before said board in the following branches, to wit, anatomy, physiology, histology, pathology, gynecology, obstetrics, surgery, chemistry, and the practice of osteopathy, he shall be granted a certificate to that effect and shall be registered as a qualified osteopathic physician. A fee of ten dollars shall be paid such board by each applicant before the examination is had. The certificate granted shall be recorded in the office of the clerk of the city or town in which the applicant proposes to practice, for which he shall pay the fee of one dollar.
- Sec. 3. The certificate provided for in the preceding section shall entitle the practitioner to all the rights and privileges accorded a physician or doctor of medicine under the laws of the state, but shall not authorize the holder to prescribe or use drugs in his practice, nor to perform major or operative surgery.
- Sec. 4. Within thirty days after the passage of this act it shall be the duty of the governor to appoint a board of examiners of three in number. The members of said board shall be graduates of a regularly conducted and reputable school of osteopathy and of good moral and professional character, whose duties it shall be to examine such applicants as present themselves for examination to practice osteopathy in this state. The term of office of such members shall be three years: Provided, that one member shall be appointed for one year, one for two years, and one for three years, and subsequently each appointment shall be for the full term

of three years. Any vacancy that may occur for any cause on the board shall be filled by the governor.

- SEC. 5. The fees paid such board shall be applied to the payment of the expenses of such board and as full compensation to its members for their services.
- SEC. 6. Any person who shall attempt to practice or use the system, method, or science of osteopathy in treating diseases of the human body without having complied with the provisions of this act shall be guilty of a misdemeanor, and upon conviction shall be fined not exceeding one hundred dollars for each offense: *Provided*, that nothing in this act shall be construed as prohibiting any legally authorized practitioner of medicine or surgery of this state from curing or relieving diseases with or without drugs or by any manipulation by which the disease may be cured or alleviated.
- SEC. 7. Any corporation organized under the laws of the state of Rhode Island for the purpose of establishing, conducting, and maintaining a college of the science of osteopathy shall have authority to confer on the graduates of such college the degree of "doctor of osteopathy" or "diplomate in osteopathy," together with such other privileges and powers as are usually granted to and exercised by scientific institutions of learning.
- SEC. 8. Any resident of this state at the time of the passage of this act who holds a diploma regularly issued from any legally incorporated and regularly conducted school of osteopathy, and who has been in personal attendance as a student at such school for at least four courses of study of five months each before graduation, shall be entitled to practice osteopathy in this state without further examination; and shall be entitled to receive from the board of examiners mentioned in section four of this act a certificate of the facts mentioned in this section, upon payment to said board of a fee of ten dollars: *Provided*, that said certificate shall be recorded in the manner prescribed in section two of this act.
  - SEC. 9. This act shall take effect from and after its passage.

For a year or two previously there had been established in the city of Providence a school of osteopathy. It was located in one of the office buildings on one of the principal streets and occupied two or three rooms, some of which were devoted to the reception of patients and for treatment. The school advertised freely and had a number of pupils, or students, and a number of patients.

The school was duly incorporated, and a certain number of the incorporators were members of the same family and were also instructors in the school. One physician who was duly registered to practice in this State was enrolled among the instructors.

The bill was evidently introduced at the request of the incorporators of the school, and was evidently intended for their personal advantage as well as for the protection of osteopathic practitioners against prosecution for practice of medicine, and also to prevent the practice of osteopathy by anyone who might claim the title of osteopathic physician.

A hearing was given by the House Committee on Judiciary, at which the president of the school, assisted by an attorney, presented the reasons for asking for this form of legislation. It was claimed that osteopathy was a form of practice in cure of disease which required special knowledge and instruction such as could be given only in a school of osteopathy; that it was capable of curing all forms of disease; that many diseases incurable by the ordinary methods used in medicine and surgery might be cured by this new method; that the courses given in this study at the school in Providence fitted a graduate with knowledge equal to any medical school in the country, and a graduate was fully competent to undertake the care of any medical or surgical case to which he might be called; that there were charlatans and irregulars who professed to have an osteopathic education but who were not competent, and that the graduate of this school and graduates of other properly conducted schools in other States should also be protected from the dangers arising from the practice of incompetent osteopaths. The president of the school, Dr. Riley, in response to a question from the chairman of the committee, in explaining what osteopathy means, stated that osteopaths do not believe that a dose of medicine is necessary. "We believe," he said, "that a free flow of the fluids of the body is health, and that an obstructed flow is disease. We believe that the artery and the nerve should be co-ordinate, and that the force of one should be equal to the force of the other. We believe that if a man is suffering from muscular rheumatism in the right shoulder the right shoulder is what should be treated, and that is more direct than by treating it by means of medicine taken into the stomach. We believe that it is shorter to go to Pawtucket in a direct line than by way of Boston.

"We have been practicing since 1872. This osteopathy was discovered by a man of good standing, an old army surgeon. We believe we have a right to recognition. If it does no good, it at least does no harm. We believe that objection has never been urged. We argue, therefore, that the restrictions going about us should not be as rigid as those which surround those administering drugs and medicines. I claim that the rights of the osteopath should be respected. I believe that we should not be of concern to the medical profession at all, any more than the barber or the innkeeper. We do not claim that we can cure every disease, but we do claim that we have a right to practice. We claim that we must be able to cure, or we can't have patronage.

"It is claimed that our science is mysterious; not at all. It is not as mysterious as that followed by the regular physicians, who use drugs and send you to the drug store with Latin formulæ. We use no drugs or knives, and if there is any mystery it is on the part of our brethren. But the latter condemn our practice by saying that it is a fad and a fake and will soon peter out. We simply ask that we be given the right to practice this form of treatment as others practice theirs."

"I understand that you do not use medicine at all?" said Judge Blodgett.

"Not at all" said Dr. Riley. "We claim that our doctors are as well posted in physiology and what they are going to practice as the physicians of the other schools."

"What do you do?" inquired Judge Blodgett. "You have told us what you do not."

"We treat by manipulation" said Dr. Riley. "We make a thorough physical examination, and then we correct such faults as we find existing."

"How would you treat a right arm in which there was rheumatism? inquired Judge Johnson.

"We should treat the nerves leading to the arm, or such nerves as we found affecting the arm," replied Dr. Riley.

"Could you reach those nerves by external manipulation?" inquired Judge Blodgett.

"We could," Dr. Riley replied.

It was also explained by one of the petitioners for the bill that he knew of remarkable cures resulting from the treatment given by osteopaths. "Osteopathy was born by the death of a son of Dr. Still. The boy died after all efforts of the medical profession had failed to save him. Dr. Still became a hermit for a time, and evolved this system of treatment. When he first put his treatment into practice he was met with opposition, but his remarkable cures brought him into prominence, as did also the cures by those who had learned the science from Dr. Still." He argued that the graduates of the school of osteopathy were the peers of the graduates of any of the medical colleges.

At a second hearing the opponents of the bill were permitted to present their objections. They consisted of representatives from the State Board of Health, and a few physicians; also by persons whose livelihood depended upon the administration of massage, who felt that this law would cause them to be excluded from their business by the osteopaths, whose form of treatment consists of manipulation of the different parts of the body.

The secretary of the State Board of Health made inquiry as to the meaning of the term osteopathy, which appeared to have very little connection with the intent of the line of practice as laid out by the originators of this form of treatment of disease.

That as manipulation and violent movements of different parts of the body was an essential feature of the treatment a perfect knowledge of pathological or diseased conditions which might be present should be had before one should be permitted to undertake treatment of this kind. It was manifestly impracticable to teach pathology and the several branches of medicine named in the bill in three or four rooms in an office building. The claim of such a school being equal to any of the medical schools having large lecture halls and laboratories, a large corps of instructors and unlimited facilities for instruction in hospitals, was preposterous.

No school of medicine gave a course of less than six months and many required eight months' study for four years, and then the knowledge acquired was none too complete, and yet this school would propose to give an equal amount of knowledge in a course of five months for two years.

Such a bill would be a stimulus to unscrupulous persons to establish schools of osteopathy or other schools having unusual and new methods of treatment, and they would naturally need protection in the same way.

If, as had been stated, all the graduates of these schools were as competent as any graduate in medicine, and knew even more, there should be no hesitancy for any osteopath to undertake the examination of the State Board of Health as to their proficiency, and the public would be equally well protected. The Board in its examination did not judge the applicant's knowledge by any exclusive system of medicine, homœopathic or eclectic physicians having the same consideration as regular practitioners. The judgment made was to determine if in the practice of medicine the applicant was a safe person to undertake the care of the public and that danger from ignorance might be eliminated.

The committee did not feel justified in recommending the bill to the House for action, and the attempt to obtain legislation was abandoned.

In the meantime the State Board of Health has not seen its way clear to prosecute any persons who are practicing osteopathy, owing to a decision of the Supreme Court rendered upon cases of Christian Scientists, Faith Healers, and others.

#### PROSECUTION OF AN OSTEOPATH.

For the purpose of ascertaining to what extent the practice of osteopathy became a part of the practice of medicine, inspectors were

detailed to investigate the methods used at the Rhode Island College of Osteopathy, where the patients were received and treated for such ailments as they might complain of.

The evidence obtained showed that while massage of the spine and manipulation of the joints formed the essential part of the treatment, yet it was also found that where these measures failed, or were not satisfactory to the patient, drugs and medicines were prescribed and delivered to the patient, accompanied with advice as to the manner of taking the medicine.

The osteopath who was alleged to have prescribed and treated in this way and was unlicensed to practice medicine, and was the assured head of the college, was arrested, and upon appearance before the district court waived examination and allowed the case to go before the grand jury, which found him probably guilty, and the case was referred to the Supreme Court. An explanation given by the osteopath was to the effect that while he gave the medicines and advice personally to the patient, he had just obtained both from a physician who was retained by the college and who was continually on the premises. This physician did not appear to the patient.

At the close of the year the case was still pending in the courts.

CHANGES IN THE REQUIREMENTS FOR EXAMINATION FOR CERTIFI-CATES TO PRACTICE MEDICINE.

At a meeting of the Board held on March 14, 1901, it was voted that:

"In order to conform to the suggestions of the New England States Medical Examining and Licensing Boards and to make the examination of applicants less cumbersome it was voted that:

"Hereafter a supplementary examination shall embrace only the subjects of surgery, theory and practice, obstetrics and gynacology.

"A full examination shall embrace the subjects of anatomy and physiology, chemistry and materia medica, pathology, surgery, theory and practice, obstetrics and gynaecology, and hygiene and medical jurisprudence.

"There shall be ten questions upon each set of subjects.

"An average of seventy-five (75) per cent. of all subjects must be successfully attained for passage of the applicant."

## APPEAL IN CASE OF JOSEPH N. ROY.

In 1900 the Board gave numerous hearings to a Joseph N. Roy, who had obtained a certificate on a borrowed diploma and had practiced for a period of a year before the imposition was discovered by the Board.

As the result of the evidence presented at the hearings, his certificate to practice medicine was revoked by the Board.

The charge of the State Board of Health against Joseph N. Roy was that he procured a certificate for the practice of medicine by displaying a diploma from Laval University, which diploma had been granted to an entirely different person who bore a similar name; that Roy was not possessed of sufficient education to practice medicine with safety to the people of the State, and that he had been guilty of grossly unprofessional conduct in obtaining a certificate by misrepresentation. Roy appealed from the action of the State Board, but before his appeal had been taken up he moved to quash the proceedings against him. His motion was based on arguments that the Board had no jurisdiction to try him on the charge and specifications made, for the reason that none of the specifications amounted to grossly unprofessional conduct of a character likely to deceive or defraud the public.

Judge Rogers, who wrote the opinion, said that if the defendant obtained his certificate to practice medicine by misrepresentation and fraud he was guilty of conduct likely to deceive or defraud the public by inducing it to believe that he was lawfully entitled to practice medicine by reason of the qualifications that would honestly entitle him to the certificate, and that such conduct would be grossly unprofessional seemed too plain to require argument. The deception and fraud that were initiated at the granting of the certificate were kept up and continued every time he practiced medicine in this State under the pretended authority of a fraudulently obtained certificate.

Hence the contention that the gross unprofessional conduct must occur after the granting of the certificate to practice had no application there.

The ground urged, that the Board never found any of the charges true, it was held, would not justify quashing the proceedings. "The third ground," said the opinion, "for the motion to quash is because paragraph 5 of chapter 165, General Laws of Rhode Island, is unconstitutional, in that it conflicts with paragraph 1, article 10, of the Constitution of the State.

"That section provides that the judicial power of this State shall be vested on one Supreme Court and in such inferior courts as the General Assembly may from time to time ordain and establish, the contention being that the State Board of Health is not a court and that the powers granted to it are judicial powers. \* \* \*

"While perhaps there may be force in the contention that the State Board of Health is not strictly a judicial body, yet we do not deem it necessary to decide that question here, for even if it is not a judicial body it does not follow, in our opinion, that the act is unconstitutional.

"Statutes similar to the one under consideration, restricting the practice of medicine to persons who are able to demonstrate their qualifications, have been held constitutional as a proper exercise of the police power of the State in very many States of the Union as well as in the Supreme Court of the United States. \* \* \*

"Even if the State Board of Health is only an administrative board and not a court, we see nothing objectionable on constitutional grounds to the method provided in said chapter 165 for getting the matters involved before a court that it may be determined judicially."

Judge Rogers held that jury trial was not a right of the defendant in such a case as this, hence the statute in question was not necessarily unconstitutional. He also contended that the defendant was wrong in stating that the State Board acted both as court and prosecutor, since the Board was not the complainant.

# DEATH OF DOCTOR PETER FRANCIS CURLEY, MEMBER OF THE BOARD.

For a second time since its formation in 1878 the board has met with the loss of a member by death. In 1893 its honored secretary was taken from the ranks, and again the board is called to mourn the decease of one of its members, Dr. Peter Francis Curley, the representative from the county of Newport.

Dr. Curley was appointed as a member of the board in the year 1890. His personal presence at the meetings of the board always introduced a feeling of brotherly association which is not usually found among men meeting for the transaction of business of this nature, and his absence will be felt for a long period.

His devotion to his professional life was reflected in the manifestations of esteem, reverence, and grief expressed by the concourse of his fellow-citizens which gathered to do honor to his remains. This was especially marked among the children of his city of residence; by the attendance of a large number of the clergy of his faith; and by the poorer classes of his patients, to whom much of his life and strength was given gratuitously.

At a meeting of the board called for the purpose, the following resolutions were adopted by the board as expressing in but a small part the feelings of the board.

Formal notice of the death of Dr. Curley having been communicated by the secretary, it was, on motion, unanimously

Voted, That the following minute be spread upon the records of the Board:

The recent removal by death from the scene of his earthly activities of Dr. Peter F. Curley, of Newport, imposes upon the board as an official body the obvious official duty of making recognition of the sad event on its records. But in

discharging this duty the members of the board desire to avail themselves individually of the opportunity of giving expression to their profound sense of personal loss in the departure of their late and long-time associate. Dr. Curley had been for ten years a member of the State Board of Health. His services during those years had been invaluable. The important work intrusted to the board had been with him a matter of vital interest, and he had never sought to evade his responsibilities in connection with it, whether in the way of participation in the formal proceedings of the board as an organization, or in that of promoting its work in the important portion of the State which he represented. Residing at a distance, and engrossed with extensive professional duties, he, nevertheless, was rarely absent from the regular or special meetings of the board, attendance on which must have involved considerable sacrifice of time and convenience. The exacting and delicate duties of his position in cases requiring examination of applicants for certification were intelligently and conscientiously performed. Of the intercourse of the other members of this board with their late associate personally they find great gratification in testifying to the unfailing courtesy and geniality on his part, which, through all the years of their association with him, have made it gratefully memorable to them and deepened the sense of personal loss which his removal now occasions.

### It was, on motion, further

*Voted*, That a copy of the record of this action of the board be transmitted by the secretary to the family of Dr. Curley, and also to the press for publication.

At the January session of the General Assembly, Governor William Gregory, Governor, with the advice and consent of the Senate, appointed Dr. Rufus H. Darrah, of Newport, to fill the vacancy in the board caused by the death of Dr. Peter F. Curley.

### SMALL POX IN THIS STATE.

While small pox had prevailed in various towns outside of the State, and also in close social and commercial contact for many months, it seemed fortunate, though not to be expected, that it did not appear in any or all of the manufacturing villages and cities of this State. With the operative population continuously changing their homes and places of work from mill to mill, a few, if not many, cases might be expected to occur. Not until the middle of June, however, did the invasion occur.

### LINCOLN.

In the town of Lincoln, about June 13, one or more cases were discovered among the operatives in the mills. The discovery of one case led to the exposition of others in the same family. This in turn led to the knowledge of cases in other families. In several of the cases discovered the patients had already recovered and were in the later stage of desquamation, and were traveling about the streets and visiting their friends.

This led to the belief that many cases might have existed and recovered without medical attendance. This afterwards proved to be the case. In the endeavor to discover these and subsequent cases the health officer was hindered in many ways. The population, being mostly of French Canadian birth and having no fear of the disease and its consequences and not being impressed with the seriousness of its spread to others, paid little attention to it. As soon as they observed activity on the part of the authorities they at once endeavored to conceal any cases which occurred. Aside from the fear of these people that they would be quarantined and deprived of the privilege of continuing to work in the mills, there appeared a disposition in many, but not all, cases to obstruct the investigation of the authorities.

Many families, where the disease had been present in several persons, would deny its presence. In some cases the patients would be hidden away in closets at the time of the visit of the inspecting officers, who may have heard of the case as one which had been walking on the street. These people are all more or less familiar with the appearance and symptoms of small pox, owing to its prevalence in Canada, yet every eruption would be considered by them as some simple form of skin disease, and they would hope to pass through the different stages of the disease and escape discovery. In this many were successful, so much so that the disease appeared simultaneously in families who were unknown to each other, except possibly by contact in their daily labors.

Such cases would be discovered sometimes only after several cases had occured in one particular room in a mill or other close association.

These cases, in their indignation or surprise at discovery of having the disease, would state that such a person had had a similar eruption for some time and they were not apprehended, and why should these new ones suffer any restraint. Not until then would the origin of a local outbreak be discovered.

To be sure, the mild character of the prevailing epidemic, both in amount of skin manifestations and in the constitutional symptoms, caused many of these cases to take little note of the trouble, though such cases could not be wholly excused when it was probably known that small pox had entered the State and was spreading, and that any unusual eruption of the skin was a suspicion which, for the good of the public as well as of the person, should receive attention. Expense of examination could not be offered for excuse, since the town provided physicians who would diagnose the condition, if present, and refer the case to the family physician.

Apathy and antagonism on the part of the town council, which constitutes in all small towns the health department, aggravated the conditions and placed obstacles in the way of the health officer in the performance of his duties.

The class or nationality in which the disease appeared constituted

the major portion of the voting population. Votes and official position are synonymous. Hence the influence politically was strong, and when politics and health matters clash something is very sure to happen. The intelligent public after a short period becomes awakened to its rights and demands them

The continued appearance on the streets of persons having a peculiar or unusual form of eruption on the face at last led the authorities to authorize the expenditure of money, the appointment of assistant health officers to serve as examiners or inspectors, and the authorization of general vaccination at the expense of the town. House to house inspections were made, and many unsuspected cases discovered in concealment or in ignorance of the character of the eruption.

To obtain satisfactory results from vaccination a majority of the population must be made immune against the disease. It was impracticable for the physicians to meet the many cases of unvaccinated between the hours of labor. It has always been the custom in manufactories in towns where the disease has prevailed to assist the health officers or vaccinating physicians by offering every facility to the vaccinating officer to meet such of the operatives, as desire protection, during working hours.

They are congregated in one spot, they are easily accessible. The time per capita consumed for the operation is small, and the protection of the manufactories enormous.

Unfortunately the controlling manufacturing interest in this town did not view this proposition in the same light as the sanitarians of the whole world who are familiar with the neglect of this procedure and its consequences.

Request for assistance from the management and from the owners of the manufacturing interests present was refused. Important business interests were left to the decision of the superintendents, whose shortsighted horizon could not see beyond the local town, until public sentiment and the multiplication of cases of small pox sounded

an alarm which could not be resisted. Co-operation was then grudgingly given.

But the mischief had been done. The disease had been allowed to spread, and this small town of Lincoln, of 9,500 inhabitants, had between the middle of June and the first of September over fifty cases of small pox which had been discovered. Those which escaped observation can not be determined, but from the appearance of the disease in places remote from the known centres of infection it would lead to the belief that many cases escaped observation and record.

The natural sequence of such an action on the part of a seemingly intelligent manufacturing interest was shown by the fact that mills outside of this town refused to receive the product of the mills so long as this carelessness and lack of precautions existed. The amount of loss to such a corporation can not be estimated, because the officers of the firm are unable to understand the far-reaching results which are reported to the State Board of Health.

Of the fifty discovered cases of small pox in the town of Lincoln, forty-nine were operatives in the Manville Mill, so-called, the only remaining case being a farm hand who had come to the town from North Smithfield during the prevalence of the disease.

After vaccination had been well distributed among the population and the health officers had succeeded in placing in quarantine a large number of cases, the epidemic ceased.

It seems unfortunate that one local community may continue to revel in the production of a serious and dangerous malady to the detriment and contamination of the neighboring towns, and that no legal restraint may be made by some central authority, national or State.

As an illustration of such carelessness, the following incident may be noted: Information was received during the progress of the epidemic in New England that a certain town in Massachusetts near the border of Rhode Island had broken up a camp where small pox existed and had scattered cases to other towns, and some of the cases found their

way to this State. It was felt that this procedure was unwarranted and was at least not very neighborly.

### CUMBERLAND.

Only three cases occurred in the town of Cumberland. The first, on June 24th, in the person of a plate layer on the N. Y., N. H. & H. R. R., and the other two being operatives in the Manville Mill, where so many other cases had occurred.

This town was particularly fortunate in not having its expense account greatly increased as the result of the invasion of the disease, although the cost pro rata was quite sufficient to show the seriousness of the presence of the disease.

### CITY OF PROVIDENCE.

From May 26, to June 29, nine cases occurred. (See Report of Superintendent of Health, page 97.)

### CITY OF NEWPORT.

On June 11 an isolated case of the disease was found to be a domestic in one of the families which constitute the summer colony of visitors to Newport. The family had recently moved from New York, where the disease was probably contracted, since no cases had previously occurred in this city and no communication with other States had occurred to any member of the family. The case was at once removed to an isolation cottage and cared for. Vaccination of all persons who had been exposed was at once attended to by the attending physician, and no further cases occurred as the result of contact with this case.

On October 7 a case was reported on Appleby street. This proved to be a genuine case in the person of a captain of the Salvation Army Corps.

Several persons who boarded at this station, or home, either con-

tracted the disease from this case or from the original source of infection to which the captain had been exposed.

Cases continued to occur until November 8, making fourteen cases, all of which were contracted from the first case or from those who had been exposed with the first case.

An isolated house was selected and equipped as a reception hospital, and the cases were properly quarantined and treated.

Over 10,000 persons were vaccinated in the city at this time.

### CITY OF PAWTUCKET.

The first case to occur in the city of Pawtucket was in the latter part of June. From June 30 to July 16 new cases appeared among children in a parochial school. None of these children had been vaccinated. The General Laws require that all children in attendance upon the public schools shall be properly vaccinated, but no provision is made for this safeguard in the parochial schools.

All of these children were French Canadians. Some of these were quarantined in their homes until provision could be made for receiving them when the small pox hospital was opened.

This practically new and airy building had been provided some years previous by the forethought of some of the prominent physicians and the city fathers, and by its readiness to receive these and the following cases saved the city of Pawtucket a large expense which would have occurred if quarantine had been maintained at each residence or until a hospital could have been provided or erected and equipped.

Up to July 24 five other cases appeared, and no more until one in September, the latter as a result of exposure in Woonsocket, where the disease had gained a foothold at that time.

One of these cases gave the health officer considerable trouble and anxiety. The father of a child who had the disease spirited the patient away while the health officer was making preparations to transfer the case to the hospital. The father refused to state where

the mother had gone with the child. He was a well-to-do and well-known citizen, a French Canadian, and enjoyed a prosperous grocery trade. He had, up to this time, assisted the health officer by allowing the use of one of his spare wagons as an ambulance to transfer other cases to the hospital. After much persuasion, and after he had seen the unenviable position in which he had placed himself before his fellows and his customers, it was ascertained that the mother had fled to Gardner, Mass., with the child. He could not remember well where the fugitives would visit, but after considerable more argument the exact house in the town of Gardner was ascertained. The health officer of that town was at once notified by telegram and the case was at once quarantined by him at that point. It was reported that other cases occurred at Gardner, later, as a result of this migration.

#### WOONSOCKET.

The city of Woonsocket, having a population of 30,000, of which 8,000 are of the manufacturing class and with a preponderance of Canadians, it would be assumed that this city, would be the first to be subjected to an outbreak of small pox. Although the disease had prevailed in several towns in the northern part of the State and the inhabitants were constantly visiting Woonsocket, and people living in towns in Massachusetts where the disease existed were frequent visitors to the city, yet the disease did not appear until the middle of July.

After the appearance of the first case, however, the number increased daily, as was to be expected. Cases were found working in the mills while in a state of desquamation.

The mayor and board of aldermen took prompt and effective action. Dr. William C. Monroe, the health officer, was directed to take all precautions and to assume any necessary expense in establishing and maintaining quarantine and in providing public vaccination. He was also directed to select a site for a hospital to receive the new

cases as fast as they might occur, for it could be anticipated that a large number would appear.

The infection was received from various points, some of the cases having visited in families where the disease was present in the Dominion of Canada.

By the end of the year twenty cases had been reported. Some of these were quarantined in their own houses; but as soon as the hospital was established nearly all of the cases were transferred to the Cass Park Hospital, where every convenience for the care of such cases was provided. Up to this time over \$10,000 had been spent in controlling the epidemic.

The hospital was most admirably located in a large isolated and undeveloped park land owned by the city, and the efficient health officer superintended the arrangement and erection of a number of cottages of different sizes and a central administration building, new cottages being added as the demands made necessary. The buildings were all of wood, and the whole equipment was installed with a minimum of expense and yet provided everything requisite for the successful accommodation and care of as many patients as might be quarantined.

As was to be expected in dealing with a foreign population, a disregard, and even opposition, to common sanitary precautions was shown.

The French Canadians, accustomed to the disease and seeing it spread without check in their own homes in Canada, resented any interference with their privilege of mingling with the people, working in the factories, and spreading the disease as it might happen. They had no confidence in precautions of any kind, and vaccination was to them a fetich or a good luck omen which had no power.

As an illustration, the secretary, in company with the health officer, discovered four cases of small pox in a family of eleven persons varying in age from three years to seventy and residing in a tenement of four rooms accommodation. Two of the cases had the cruption covering from the whole face to the soles of the feet. Both subsequently

died. Not one of the family had been vaccinated. All were advised that it was necessary that those who had not yet shown symptoms of the disease should be vaccinated. At this proposition there was a wail of dissent. Upon explaining that they would undoubtedly all have the disease, living as they were in such close and unsanitary contact, the reply was, as in many other cases, "If we take the disease, we have it. If we die, it is the Lord's will, but we will not be vaccinated." The result was, as expected, using the same cups, spoons and other utensils. The free coughing of the victims necessarily spread the disease among those confined with it, and, none being vaccinated, all finally reproduced the disease. Of these two died and several others were disfigured for life, a condition to which they seemed to attach no importance. It is a proud insignia of nationality.

This statement should not be applied to the more intelligent class of Canadians, but it must be remembered that it was the working and more or less unenlightened class of working people which continued the existence of the disease.

To add to the anxiety and application of advanced common sanitary sense, a certain number of influential politicians, urged on by a large voting and political influence, made endeavor to check the work of the health officer by suggesting that the disease that prevailed was not small pox, in spite of the fact that it had been shown conclusively to be present in the towns of Connecticut and Massachusetts and within fifteen minutes' ride of their own city in the State of Rhode Island. Certain tradesmen who, having received the disease in their own families, endeavored, with the acquiescence and encouragement of certain French physicians to conceal the presence of the disease. Fearing loss of trade if their houses were quarantined they not only refrained from reporting the presence of the disease, but sought to conceal it, hoping that in a period of six weeks or more they could recover and not be discovered.

In all instances this attempt was frustrated. One person or more would be overcome by the disease as the result of exposure to the members of these concealed cases, and then in their indignation they would report the source of their contagion, the concealment of which they were in sympathy with until they themselves were the sufferers, and then they were only too ready to expose the violaters of the law.

The experience in this city was the same as in the presence of all epidemics. The concealment of cases led to hysterical alarm until the declaration of its presence and the usual application of precautionary measures produced confidence and a freedom of communication and business.

To add to the difficulties of the health officer, a resolution enacted by the city council provided that certain experts, to be invited from distant parts, should examine the cases which were called small pox by the local authorities, and these experts should decide if small pox existed in Woonsocket. The health officer, Dr. Monroe, and the secretary of the Board, with the assurance of confirmation of any intelligent and experienced authorities, only too gladly welcomed the consultation of experts from abroad. They felt that, as it would be necessary for the city to expend an unusual amount of money for the control of the disease, it was proper that the council of the city should have a sure foundation for such an expenditure.

As the result of the action of the city council, three experts were employed to visit the city and pronounce upon the existence or absence of small pox.

Dr. Laberge, of Montreal, and Drs. McCullom and Shea, of the Boston City Board of Health, were invited. They visited several of the cases present in the city of Woonsocket, and without hesitation declared that these cases were small pox and no other disease, and, as had been recommended by the local officers, complete isolation and thorough and complete vaccination should be instituted. This consultation cost the city five hundred dollars, but was an expenditure necessary for the furtherance of confidence and justification for large expenditures which were sure to come.

The council then, having the assurance of the public sentiment, made no equivocation upon expenditure of necessary funds for con-

trolling the disease as recommended from time to time by the health officer.

The work of the health officer, hampered as it was at times, obstructed almost by force at other times, in the face of ignorance and organized defy, was at times more than would be borne by the average American citizen. But in the face of all, at the sacrifice of the loss of a lucrative personal private practice, he met and fought against this concentration of opposition with a zeal which at times was more than equal to his physical strength. But the result of his efforts was obvious. That the city of Woonsocket, populated as it was and in close association with each other in the manufactories, did not present a much larger number of cases and a large mortality was due to the untiring and unselfish efforts of one who was willing to sacrifice his personal advantage to the common good.

These statements are not made for the purpose of laudatory expression of an individual, but to illustrate that the right health officer in any place can be productive of benefit to the common good.

For Woonsocket the year ended with 20 cases of small pox on hand, a fairly good disposition toward general vaccination, a continued opposition from foreign citizens to obey the law, a mayor and board of alderman prepared to meet any emergency, a hospital equipped and successfully maintained, a health officer pretty well tired out, and the possibilities of an extension of the disease.

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### GENERAL LAWS.

### CHAPTER 96.

### OF THE STATE BOARD OF HEALTH.

Section 1. The governor, with the advice and consent of the senate, shall appoint six persons, two from the county of Providence, and one from each of the other counties, who shall constitute the state board of health, one of whom shall be appointed in each year for the term of six years from the first day of July. Any appointment to fill a vacancy shall be filled for the remainder of the term. Of the persons so appointed, at least three shall be well-educated physicians and members of some medical society incorporated by the state. The governor may remove any member, for cause, at any time, upon the written request of two-thirds of the board

The state board of health, appointment; vacancies, how filled; removals, how made.

SEC. 2. The board shall take cognizance of the interests of life and health among the citizens of the state; they shall make investigations into the causes of disease, and especially of epidemics and endemics among the people, the sources of mortality, and the effects of localities, employments. conditions, and circumstances on the public health, and shall do all in their power to ascertain the causes and the best means for the prevention of diseases of every kind in the state. They shall publish and circulate, from time to time, such information as they may deem to be important and useful for diffusion among the people of the state, and shall investigate and give advice in relation to such subjects, relating to the public health, as may be referred to them by the general assembly, or by the governor when the general assembly is not in session.

Duties of the board, with reference to life and health among the citizens of the state.

The state board of health shall also investigate the subject of diseases among the cattle or other animals.

To investigate diseases among cattle, etc.

SEC. 4. The board shall meet in the city of Providence once in three Meetings. months, and as much oftener as they may deem necessary. No member Compensation. of the board, except the secretary, shall receive any compensation for his services; but the actual personal expenses of any member, while engaged in the duties of the board, shall be paid by the state.

Secretary.

SEC. 5. The board shall elect a well-qualified physician as their secretary, who shall be *ex-officio* a member of the board, the commissioner of public health and state registrar; but he shall not be permitted to vote on any question in which he is personally interested.

Duties of secretary. SEC. 6. The secretary of the board shall make inquiry, from time to time, of the clerks of town and local boards of health and practicing physicians, in relation to the prevalence of any disease, or knowledge of any known or generally believed source of disease or causes of general ill-health, and also in relation to the proceedings of the said boards of health, in respect of acts for the promotion and protection of the public health, and also in relation to diseases among domestic animals in their several towns; and the said clerks of town and local boards of health and said practicing physicians shall give information, in reply to said inquiries, of such facts and circumstances as shall have come to their knowledge.

Same subject.

SEC. 7. The secretary shall perform and superintend the work prescribed for said board by law, and such other duties as the board may require; he shall prepare and publish, in every calendar month, a general summary of all the deaths, and causes of the same, which have occurred in the state during the preceding month, the same to be made up from returns of deaths which shall be made to him on or before the tenth day of the month following the date of such deaths, by the several town clerks, the city registrar of Providence, and the city clerks of the other cities; he shall also prepare and publish for general distribution a monthly circular giving information and advice in regard to the preservation of health, suitable for each particular season, and giving also such information as he shall deem of advantage to the public, as to the prevalence and character of infectious diseases of domestic animals. He shall hold his office during the pleasure of the board, and may be removed at any regular meeting by a majority vote of the members of said board.

Office and expense of the board.

Sec. 8. The governor shall provide a suitable office for the board in the city of Providence; and the actual expenses of the board and of the members thereof, when certified by the chairman and approved by the governor, shall be paid from the state treasury.

To report annually,

SEC. 9. The board shall make a report in print to the general assembly, annually, of its proceedings during the year ending on the thirty-first day of December next preceding, with such suggestions in relation to the sanitary laws and interests of the state as they shall deem important.

### CHAPTER 165.

### OF THE PRACTICE OF MEDICINE

(As amended November, 1901.)

SECTION 1. It shall be the duty of each town and city clerk to purchase a book of suitable size, to be known as the "medical register" of each city or town, and to set apart one full page for the registration of each physician; and when any physician shall die or remove from the city or town, said clerk shall make a note of the same at the bottom of the page, and shall on the first day of January in each year transmit to the office of the state board of health a duly certified list of the physicians of said city or town registered under this chapter, together with such other information. Compensation. as is hereinafter required, and perform such other duties as are required by this chapter; and such clerk shall receive the sum of fifty cents from each physician so registered, which shall be his full compensation for all the duties required under this chapter.

be kept by city and town clerks.

Annual list to state board of health.

Sec. 2. It shall be unlawful for any person to practice medicine or surgery in any of its branches, within the limits of this state, who has not exhibited and registered, in the city or town clerk's office of the city or town in which he or she resides, his or her authority for so practicing medicine as herein prescribed, together with his or her age, address, place of birth, and the school or system of medicine to which he or she proposes to belong; and the person so registering shall subscribe and verify by oath, before such clerk, an affidavit containing such facts, which, if willfully false, shall subject the affiant to conviction and punishment for perjury.

Practice of medicine is unlawful without registration of certificate of authority.

SEC. 3. Authority to practice medicine under this chapter shall be a certificate from the state board of health, and said board shall, upon application, after examination, issue a certificate to any reputable physician who intends to practice medicine or surgery in this state and who shall present himself before the state board of health and pass in a satisfactory manner such examination as said board may require. Any physician so presenting himself shall pay to said board the sum of ten dollars (\$10) for Fee. each examination, and said fee shall in no case be returned, but shall be applied to pay the expenses of said board of health in conducting such examinations. Each certificate so issued shall be signed by the president and countersigned by the secretary of said board and shall be attested by the official seal, and not more than two dollars (\$2) shall be charged for a certificate.

Certificate of authority and examination by board.

Certificate to be how signed; fee therefor.

Itinerant doctors are precluded. SEC. 4. Nothing in this chapter shall be so construed as to authorize any itinerant doctor to register or to practice medicine in any part of this state.

Certificates may be refused or be revoked, when.

Board may administer oaths, summon witnesses, and compei production of books and papers.

Contempt. how punished.

Perjury.

Appeals.

To whom this chapter does not apply.

SEC. 5. The board may, after due notice and hearing, in its discretion refuse to grant the certificate provided for in section 3 of this chapter to any physician who is not of good moral character, or who has violated any of the laws of the state, or who has been guilty of gross unprofessional conduct or conduct of a character likely to deceive or defraud the public, and may, after due notice and hearing, revoke any certificate issued or granted by it heretofore for like cause or for any fraud or deception committed in obtaining such certificate, or for any other cause which in the opinion of said board shall render the holder of such certificate an unfit person to practice medicine in this state. The members of said board are hereby severally authorized to administer oaths, and said board, in all cases or proceedings pending before it, is hereby authorized and empowered to summon witnesses by subpæna signed by the secretary of said board, and to compel such witnesses to attend and testify in the same manner as witnesses are compelled to appear and testify in either division of the supreme court; and said board is authorized to compel the production of all papers, books, documents, records, certificates, or other legal evidence that may be necessary or proper for the determination and decision of any question or the discharge of any duty required by law of said board, by issuing a subpœna duces tecum, signed by the secretary; and every person disobeying any such writ shall be considered as in contempt, and said board may punish any contempt of its authority in like manner as contempt may be punished by either division of the supreme court. Any person who shall willfully swear falsely in any proceeding, matter, or hearing before said board shall be deemed guilty of the crime of perjury. Said board shall serve a copy of its decision or ruling upon any person whose certificate has been refused or revoked. Any person aggrieved by any decision or ruling of said board may, within ten days after receiving said notice, exclusive of Sundays and legal holidays, take an appeal therefrom to the appellate division of the supreme court, sitting at Providence, and shall file therein his reasons of appeal, and serve a copy thereof on the secretary, or person performing the duties of secretary, of said board: and said appellate division of the supreme court shall, as soon as may be, hear and determine said appeal.

Sec. 6. Nothing in this law shall be so construed as to discriminate against any particular school or system of medicine, or to prohibit gratuitous services in case of emergency; nor shall this chapter apply to com-

missioned surgeons of the United States army, navy, or marine hospital service, or to legally qualified physicians of another state, called to see a particular case, in consultation with a registered physician of this state, but who do not open an office or appoint any place in this state where they may meet patients or receive calls.

SEC. 7. Complaints for violation of the provisions of this chapter shall Prosecutions, be made by the secretary of said board, and said secretary shall be exempt from giving surety for costs on any complaint made as aforesaid.

Sec. 8. Any person who, not being then lawfully authorized to prac- costs. tice medicine within this state, and so registered according to law, shall practice medicine or surgery or attempt to practice medicine or surgery, or any of the branches of medicine or surgery, after having received therefor or with the intent of receiving therefor, either directly or indirectly, any bonus, gift, or compensation, or who shall open an office with intent to practice medicine, or shall hold himself out to the public as a practititioner of medicine, whether by appending to his name the title of doctor or any abbreviation thereof, or M. D., or any other title or designation implying a practitioner of medicine, or in any other way, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined fifty dollars, and upon each and every subsequent conviction shall be fined one hundred dollars and imprisoned thirty days, either or both, in the discretion of the court; and in no case when any provision of this chapter has been violated shall the person so violating such provision be entitled to receive compensation for services rendered.

secretary of state board of health not required to give surety for

Penalties for practicing without certificate.

### CHAPTER 287.

### OF MEDICAL EXAMINERS AND CORONERS.

SECTION 1. The governor shall appoint, in each county, able and discreet men, learned in the science of medicine, to be medical examiners in such county.

SEC. 2. The number of medical examiners appointed as provided in the preceding section shall be as follows:

For the county of Washington five examiners, one in each of the five following districts, viz.: District one, composed of the town of Westerly; district two, of the town of South Kingstown; district three, of the town of Hopkinton; district four, of the towns of North Kingstown and Exeter; district five, of the towns of Charlestown and Richmond.

For the county of Kent two examiners, one in each of the two following districts, viz.: District one, composed of the towns of West Greenwich and Coventry; district two, of the towns of East Greenwich and Warwick.

For the county of Providence eleven examiners, one in each of the first nine following districts, and in district ten two examiners, viz.: District one composed of the towns of Scituate and Foster; district two, of the towns of Cranston and Johnston; district three, of the town of Glocester; district four, of the towns of Smithfield and North Providence; district five, of the towns of Burrillville and North Smithfield; district six, of the city of Woonsocket; district seven, of the town of Cumberland; district eight, of the cities of Pawtucket and Central Falls and the town of Lincoln; district nine, of the town of East Providence; district ten, of the city of Providence.

For the county of Bristol two examiners, one in each of the following districts, viz.: District one, composed of the towns of Barrington and Warren; and district two, of the town of Bristol.

\*The number of medical examiners for the county of Newport shall be five, one in each of the first three districts and two in district four; and said districts shall be composed as follows: District one, of the towns of Tiverton and Little Compton; district two, the town of Portsmouth; district three, the town of New Shoreham; district four, the city of Newport and the towns of Middletown and Jamestown.

SEC. 3. If either of the medical examiners shall, at any time, from any cause, be unable to perform the duties of his said office, or shall be deemed by the attorney-general for any cause disqualified therefor, a medical examiner from an adjoining district may be called upon to perform them.

<sup>\*</sup> As amended April 16, 1896.

- SEC. 4. Every medical examiner shall hold his office for the term of six years, and until another is appointed and qualified to act in his place, unless sooner removed by the appointment of some other person to fill his place.
- SEC. 5. Every medical examiner shall, within thirty days after his appointment, and before entering upon the duties of his office, give bond with surety to, and to the satisfaction of, the general treasurer in the sum of one thousand dollars for the faithful performance of his duties.
- Sec. 6. If the condition of any such bond be broken, to the injury of any person, actions may be brought upon such bond as upon the official bonds of sheriffs.
- Sec. 7. Medical examiners shall make examinations as hereinafter provided, upon bodies of such persons only as are supposed to have come to their death by violence: *Provided*, that in case any prisoner in the state prison or in any county jail dies while so imprisoned, it shall be the duty of the medical examiner of the district in which such prison or county jail is situated, upon being notified of the death of such prisoner, to make at once an examination upon the body of such deceased prisoner.
- Sec. 8. When a medical examiner has notice that there has been found, or is lying, within his district the body of a person who is supposed to have come to his death by violence, he shall forthwith repair to the place where such body lies and take charge of the same; and if, on view thereof and personal inquiry into the cause and manner of the death, he deems a further examination necessary, he shall, upon being thereto authorized in writing by the attorney-general, or by the mayor of the city or president of the town council of the town where such body lies, make an autopsy in the presence of two or more discreet persons as witnesses, and shall then and there carefully reduce, or cause to be reduced, to writing every fact and circumstance tending to show the condition of the body and the cause and manner of death, together with the names and addresses of said witnesses, which record he shall subscribe. Before making such autopsy he shall call the attention of the witnesses to the position and appearance of the body
- SEC. 9. Should the medical examiner deem it advisable to have present a physician as one of the witnesses as aforesaid, such physician shall also subscribe the record made by the medical examiner, and for such service he shall receive a compensation of five dollars.
- SEC. 10. Town councils shall select a suitable person to act as coroner for their respective towns, to hold his office for three years and until another is elected and qualified to act in his place, unless sooner removed by the election of some other person to fill his place.
- Sec. 11. The coroners so elected shall have exclusive jurisdiction as coroners in their respective towns.

- SEC. 12. The coroner shall appoint in writing, under his hand and seal, one or more discreet persons to act as his deputy in case of his absence or inability to act, who shall have all the powers of a coroner, and be subject to like pains and penalties, for malfeasance in office; and the coroner shall file a copy of the appointment in the town clerk's office of his town.
- SEC. 13. The coroner may suspend or discharge a deputy. The suspension or discharge of a deputy shall be in writing, addressed to the deputy; and the coroner shall forthwith file a duplicate thereof in the town clerk's office of his town.
- Sec. 14. Every coroner and deputy coroner shall, before entering upon the duties of his office, take the engagement prescribed in section five of chapter twenty-five.
- SEC. 15. Whenever the coroner has notice that there is in his town any person who has been injured by the criminal act, omission, or carelessness of another, and that said person believes that his death is impending from such injury, said coroner may take the statement of such person concerning the manner in which, and the person by whom, such injury was inflicted; and the statement so taken shall be reduced to writing and, if practicable, in the presence of the injured person.
- SEC. 16. If, upon such view, personal inquiry or autopsy, the medical examiner is of the opinion that the death was caused by the act or neglect of some person other than the deceased, he shall at once notify the attorney-general, and coroner of the town where the body was found, or in which it lies, and shall file a duly attested copy of the record of his autopsy, or view, with the said coroner and a like copy with the attorney-general; and shall in all cases certify to the officer having the custody of the records of deaths in the town in which the deceased came to his death, the name and residence of the person deceased, if known, or, when the name and residence cannot be ascertained, a description of the deceased, as full as possibly may be, for identification, together with the cause and manner by and in which he came to his death.
- Sec. 17. The coroner shall thereupon hold an inquest, which may be private; in which case any or all persons, other than those required to be present by the provisions of this chapter, may be excluded from the place where such inquest is held, and such coroner may also direct the witnesses to be kept separate so that they cannot converse with each other until they have been examined. The attorney-general, or some person designated by him, may attend the inquest and examine all witnesses; and the coroner shall cause the testimony to be reduced to writing and signed by the witnesses. The attorney-general may, if he deem it necessary or expedient, direct an inquest to be held in the case of any casualty from which the death of a person results.

- SEC. 18. The coroner may issue summons for witnesses, returnable before him. The persons served with such process shall be allowed the same fees, their attendance may be enforced in the same manner, and they shall be subject to the same penalties, as if served with a summons in behalf of the state in a criminal prosecution pending before a district court.
- SEC. 19. The coroner shall, after hearing the testimony, draw up and sign a report, in which he shall find and certify when, where, and by what means the person deceased came to his death; his name, if known, and all material circumstances attending his death; and if it appears that his death resulted wholly or in part from the unlawful act of any other person, he shall further state the name of such person, if known to him, and he shall file such report, and the testimony by him taken, together with a copy of the record of the autopsy or view, in the office of the clerk of the court wherein an indictment for the offence may be found.
- SEC. 20. The coroner shall bind such witnesses as he deems necessary, or as the attorney-general may designate, by recognizance in a reasonable sum, with sufficient surety, to personally appear, at such time as the coroner may designate, at the district court of the district wherein the inquest is held, and not depart therefrom until discharged by said court; and if any such witness shall refuse to recognize as aforesaid, the coroner shall commit such witness to the jail in the same county, there to remain until he shall so recognize or be otherwise discharged according to law.
- SEC. 21. If the report of the coroner shall state that the death was caused by the unlawful act or by the gross carelessness of any other person, and by whose act the same was committed, he shall immediately make a complaint thereof against the person accused, in writing and on oath, to the justice or clerk of the district court in the district where the offence was committed, to the intent that the person killing or being in any way criminally instrumental to the death may be apprehended; but nothing herein contained shall be so construed as to prevent complaint being made at any time before the finding of the report. And the coroner shall forthwith, in writing, notify the attorney-general of the complaint aforesaid, that he may appear by himself or some person appointed by him, at the examination, and prosecute the claim in behalf of the state.
- SEC. 22. If a medical examiner reports that a death was not caused by the act or neglect of some person other than the deceased, and the attorney-general is of a contrary opinion, the attorney-general may, notwithstanding such report, direct an inquest to be held in accordance with the provisions of this chapter; at which inquest he, or some other person designated by him, shall examine all the witnesses.
  - Sec. 23. The medical examiner may, if he deem it necessary, employ a

chemist to aid in the examination of the body, or of substances supposed to have caused or contributed to the death; and such chemist shall be entitled to such compensation for his services as the medical examiner certifies to be just and reasonable, the same being audited and allowed in the manner hereinafter provided.

- SEC. 24. When a medical examiner views or makes an examination of the dead body of a stranger, he shall cause the body to be decently buried; and if he certifies that he has made careful inquiry, and that to the best of his knowledge and belief the person found dead is a stranger, having no settlement in any town of the state, his fees, with the actual expense of burial, shall be paid from the general treasury. In all other cases the expense of the burial shall be first paid by the town wherein the body is found, and such town may recover the money so paid from the town where such person last had a settlement: Provided, however, that the general treasurer, or any town, ultimately paying any such burial expenses, shall have the right to recover such burial expenses from the estate of the deceased person.
- SEC. 25. When services are rendered in bringing to land the dead body of a person found in any of the harbors, rivers, or water of the state, the medical examiner may allow such compensation for such services as he deems reasonable; but this provision shall not entitle any person to compensation for services rendered in searching for a dead body.
- SEC. 26. In all cases arising under the provisions of this chapter, the medical examiner shall take charge of any money or other personal property of the deceased, found upon or near the body, and shall deliver the same to the person entitled to its custody or possession; or if not claimed by such person within sixty days, then to an administrator, to be administered upon according to law.
- SEC. 27. A medical examiner who fraudulently neglects or refuses to deliver any such property within three days, after demand upon him therefor, shall be imprisoned not exceeding two years or be fined not exceeding five hundred dollars.
- SEC. 28. The fees of coroners shall, for the services specified in this chapter, be as follows, namely: For receiving and filing a duly attested copy of the record of an autopsy, fifty cents; for every page of two hundred words of written testimony, thirty cents; for each day's attendance in holding the inquest, five dollars; for the recognizance of witnesses, thirty-five cents; and for drawing up and filing a report in court, five dollars. Said fees having been audited by the state auditor, upon certificate of the attorney-general, shall be paid by the general treasurer.
- SEC. 29. Each medical examiner shall receive fees as follows: For a view without an autopsy, four dollars; for a view and an autopsy, thirty dollars; and

for travel, at the rate of ten cents a mile to the place of view. He shall also have power, in case of an autopsy, to employ a clerk at an expense not exceeding three dollars per day for each day's actual service.

SEC. 30. Every medical examiner shall return an account of the expenses of each view or autopsy, including his fees, to the state auditor, and shall annex to his return the written authority under which the autopsy was made. The state auditor shall audit such account and certify to the general treasurer what items in such account are deemed just and reasonable, and such items shall be paid by said treasurer to the persons entitled to receive the same.

SEC. 31. Medical examiners shall, in the books provided by the secretary of state, keep a record of all views of bodies found dead, together with their view and autopsy reports, and, on the first of January, April, July, and October, shall forward to the secretary of the state board of health attested copies of such records of views, together with the view reports and conclusions from autopsies. Should the commission of service of a medical examiner expire before the end of a quarter, the said examiner shall at once forward to the said secretary of the state board of health the records and reports of all cases unreported at date of expiration of said service.

SEC. 32. For each and every copy of said records and reports forwarded to the said secretary of the state board of health, medical examiners shall receive twenty-five cents, which shall be paid by the state upon the voucher of said secretary of the state board of health that such copy of reports and records have been received by him.

SEC. 33. The secretary of the state board of health shall cause the returns received by him for each year, in accordance with this chapter, to be bound together with an index thereto; the state registrar shall prepare or cause to be prepared from the said returns such tabular results as will render them of practical utility, and shall make report thereof annually in connection with the report of births, marriages, and deaths required by chapter one hundred.



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RELATING TO THE

### REGISTRY AND RETURN

OF

# Births, Marriages, and Deaths,

AND OF DIVORCE,

IN THE

# STATE OF RHODE ISLAND,

FOR THE

YEAR ENDING DECEMBER 31, 1900.

PREPARED BY

GARDNER T. SWARTS, M. D.,

STATE REGISTRAR OF VITAL STATISTICS; SECRETARY OF THE STATE BOARD OF HEALTH; COMMISSIONER OF PUBLIC HEALTH.

### PROVIDENCE:

E. L. FREEMAN & SONS, STATE PRINTERS. 1902.

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GARDNER T. SWARTS, Secretary.

### State of Rhode Island and Providence Plantations.

PROVIDENCE, R. I., February 1, 1902.

To the Honorable the General Assembly:

The forty-eighth Annual Report upon the Registration of Births, Marriages, and Deaths in Rhode Island, and including judicial procedure in relation to divorce, during the year 1900, with compendiary tables of the results of registration in the previous years, is herewith respectfully submitted.

The plan of the preceding years, in regard to the general arrangement of the tables, summaries, and comments, has been followed in this report, except that Table IX of the yearly report of causes of deaths has been re-adjusted to conform to the nomenclature of the so-called Bertillon system. Table X, giving the causes of deaths for forty-seven years, has been retained, since it is believed that it conforms more correctly to the present understood ætiology of disease; and a duplicate table, conforming to the nomenclature of the Bertillon system, has been added.

The change to the Bertllon system was made under the assumption that the classification would be in conformity with a nomenclature which was issued by Cressy L. Wilbur, M. D., Chief of the Division of Vital Statistics of Michigan. Unfortunately, however, this original classification has been modified by the authorities having its re-adjustment.

The Registrar desires it to be understood that the Bertillon system is issued in this report, not because it is believed that it is satisfactory for the purpose intended, but in order that it may be in conformity with other registration reports which may have adopted the same classification, and to assist the statistician who is able to interpret its meaning.

The classification with its special headings will be found as an appendix to the report.

In the special tables the object has been to present the important facts of many years of registration, as well as of single years, in such manner as to make them readily apparent and relieve the reader of the statistics of much of the labor of personal examination of each of the general tables of the preceding reports for the purpose of ascertaining the relation the various facts bear to each other.

In previous reports the proportion of births, marriages, and deaths to the population has been estimated in various ways. For a few years the estimation was made upon the figures derived from the ceusus taken in a given year, and the same number of population used each year until the next census was available. In other periods an estimate was made upon an arithmetical increase. The present issue, however, gives all estimates in proportion to population by geometrical ratio, and which gives a more rational uniform increase than has been previously observed. This is seen in Table XVI.

Under the class of Zymotic Diseases we have previously had Miasmatic Diseases as Order, or Group, One; and Enthetic Diseases as Order, or Group, Two. As the word Miasmatic is inappropriate at the present day to such diseases as diphtheria, measles, and scarlet fever, and as these are, with many other, dependent upon the introduction into the system of a morbific material, they are, therefore, contagious or infectious. As some controversy is liable to arise as to the preference in use of either of these terms, it has been thought desirable to use the word Communicable, which will include both. In this group have been gathered all diseases acknowledged to be dependent upon the presence of some morbid entity which in some instances has been demonstrated to be due to a microorganism, while with others it is assumed by analogy to these conditions that they may be due to the same cause.

A more extended explanation of the reclassification of these diseases will be found under Names of Causes of Death, in Appendix A, page 297 of this report.

Respectfully,

GARDNER T. SWARTS,

State Registrar.

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### REPORT UPON THE REGISTRATION

OF

# BIRTHS, MARRIAGES, AND DEATHS

IN

# RHODE ISLAND,

FOR

THE YEAR ENDING DECEMBER 31, 1900.

AND

FOR VARIOUS YEARS FROM 1853 TO 1900,

INCLUSIVE.

General Summary of Births and Marriages in the State of Rhode
Island during the year 1900.

TABLE I.

			В	RTHS					MAR	RIAG	ES.	
TOWNS		SE	X.		PAREN	TAGE.				NATIV	1TY,	
AND DIVISIONS OF THE STATE.	Whole Number.	Males,	Females.	Native.	Foreign.	Native Father. Foreign Mother.	Foreign Father. Native Mother.	Whole Number.	Native.	Foreign.	Native Groom. Foreign Bride.	Foreign Groom.
Barrington	22 154 185	13 86 94	9 68 91	3 48 26	17 57 122	2 31 16	18 21	11 37 37	7 22 15	1 6 13	1 6 6	25.00.00
Bristol County	361	193	168	77	196	49	39	85	44	50	13	8
Coventry East Greenwich West Greenwich Warwick	133 18 12 713	66 9 5 360	67 9 7 353	59 11 12 171	54 5 	9 1 71	11 1 91	26 17 1 191	23 12 1 78	2 1 61	1 26	1 8 26
KENT COUNTY	876	440	436	253	439	81	103	235	114	64	27	30
Jamestown Little Compton Middletown NewPorr CITY New Shoreham Portsmouth Tiverton	15 21 33 599 13 37 66	8 11 15 319 7 22 34	10 18 280 6 15 32	9 15 15 230 10 15 22	5 4 18 257 2 20 30	56 1 1 10	56	3 5 1 206 10 14 18	97 9 13 9	1 1 49 1 3	26	34
NewPort County	784	416	368	316	336	70	62	257	133	55	32	37
Burrillville Central Falls Cranston* Cumberland East Providence Foster Glocester Johnston Llncoin North Providence North Smithfield PAWTCCKET PROVIDENCE CITY Scituate Smithfield Woonsocket	131 610 280 236 252 15 23 149 254 55 1,025 4,503 56 53 960	72 295 143 120 128 11 5 85 123 30 25 502 2,501 23 38 469	59 315 137 116 124 4 15 64 131 29 30 523 2,202 23 15	35 118 117 52 122 14 19 20 19 14 15 315 1,362 44 25	54 363 126 130 81  3 106 178 38 28 462 2,318 7 22 544	16 57 18 22 21  10 23 6 7 128 411 4 3 122	26 72 19 32 28 1 1 1 13 3 6 5 125 412 1 3 118	35 161 66 60 73 10 11 12 57 6 19 418 1,900 18 19 283	18 49 38 20 55 10 11 6 11 3 9 162 843 16 9 87	55 14 19 5 29 1 4 128 608 2 7	6 30 9 10 5  1 10 1 3 59 280  1 47	27 5 11 8 11 8 69 219
PROVIDENCE COUNTY.		4,378	4,288	2,467	4,455	843	896	3,148	1,317	1,000	412	389
Charlestown Exeter HopkInton Narragansett North Kingstown South Kingstown Richmond Westerly	16 8 48 20 68 74 25 148	6 26 11 83 89 15	10 6 22 9 25 45 10 72	10 8 87 11 52 63 19 75	1 4 6 5 8 5 49	6 1 6 5 1	3 1 2 5 8 5	3 9 28 10 26 43 4 88	8 24 8 23 23 4 59	1 1 2 2	1 1  1 8 	2 1 2 5
Washington County	402	203	199	275	73	35	19	211	162	17	15	17

<sup>\*</sup> State institutions not included.

### Table I.—Continued.

### General Summary of Deaths in the State of Rhode Island during the year 1900.

### DEATHS.

	s	EX,	NAT	IVITY,		AGES GIVEN.		ATE AGE EARS.		GE AGE EARS.		
Whole Number.	Males.	Females.	Native.	Foreign.	Males.	Females.	Males.	Females.	Males.	Females.	Aggregate Ages.	Average Age.
21 170 106	14 94 47	76 59	17 140 73	4 30 33	14 94 47	7 76 59	468 3.573 1,213	213 2,907 2,336	33.43 38.01 25.81	30.43 38.25 39.59	681. 6,480 3,549	32.43 38.12 33.48
297	155	142	230	67	155	142	5,254	5,456	33.89	38 42	10,710	36.06
105 70 18 515	46 34 6 251	59 36 12 264	91 57 17 398	14 13 1 117	46 34 6 249	59 36 12 263	1,538 1,390 258 5,648	2,521 1,581 522 7,557	33.43 40.88 43.00 22.68	42.73 44.00 43.50 28.73	4,059 2,974 780 13,205	38.65 42.48 43.33 25.79
708	337	371	563	145	335	370	8,834	12,184	26.37	32.93	21,018	29.81
19 27 22 423 33 34 52	9 13 9 229 10 22 24	10 14 13 194 23 12 28	17 27 20 341 33 30 41	2 82 82	9 13 9 226 10 22 24	10 14 13 193 23 12 28	135 588 217 7,418 535 1,076 941	430 746 744 8,213 1,309 561 916	15.00 45.23 24.11 32.82 53.50 48.91 39.21	43.00 53.28 57.23 42.55 56.91 46.75 32.71	565 1,334 961 15,631 1,844 1,637 1,857	29.74 49.41 43.68 36.95 55.88 48.15 35.71
610	316	294	509	101	313	293	10,910	12,919	34.86	44.09	23,829	39.06
111 352 188 154 211 19 32 70 148 42 39 792 3,678 69 54 556	57 179 98 77 102 11 13 35 79 21 25 387 1,865 31 28 253	54 173 90 77 109 8 19 35 69 21 14 405 1,813 35 26 303	76 198 151 97 166 19 28 53 98 33 27 527 2,554 63 48 374	35 154 37 57 45 41 17 50 9 12 265 1,124 6 6 182	57 179 98 76 102 11 13 35 79 21 25 387 1,865 34 28 253	544 173 90 75 108 8 19 35 69 21 14 405 1,813 35 26 303	2,038 3,886 3,091 1,780 5,953 650 833 1,026 1,602 582 1,071 11,088 57,376 1,746 1,174 5,304	2,076 5,203 9,107 1,492 8,851 440 931 1,201 1,910 626 170 14,558 64,046 1,698 1,070 6,853	35.75 21.71 31.54 23.42 38.75 59.09 64.08 20.28 27.71 42.84 28.60 30.76 51.35 41.93 20.96	88.44 30.07 35.52 19.89 35.66 55.00 49.00 34.81 27.68 29.81 35.33 48.51 41.15 22.62	4,114 9,089 6,288 8,272 9,804 1,090 1,764 2,227 3,512 1,208 1,541 25,626 121,422 3,441 2,244 12,157	97.00 25.82 93.45 21.67 97.16 55.12 31.81 23.76 99.51 32.86 33.01 49.91 41.55 21.86
6,515	3,264	3,251	1,512	2,003	3,263	3,248	99,180	109,622	30.40	33.75	208,802	32.07
17 18 44 20 72 99 28 141	6 7 28 11 33 47 17 85	11 11 16 9 39 52 11 56	17 17 41 19 67 90 27 111	1 3 1 5 9 1 30	6 7 28 11 33 47 17 85	11 11 16 9 39 52 11 56	241 480 1,395 302 1,290 1,865 685 3,200	723 557 857 817 1,950 2,385 591 2,658	40,17 68,57 49,82 27,45 39,69 39,68 40,29 37,65	65.72 50.64 53.56 85.22 50.00 45.86 53.73 47.46	964 1,037 2,252 619 3,240 4,250 1,276 5,858	56.71 57.61 51.18 30.95 45.00 42.92 45.57 41.55
439	234	205	389	50	234	205	9,458	10,038	40.42	48.96	19,496	11.41

Table I.—Continued.—Recapitulation.

### General Summary of Births and Marriages in the State of Rhode Island during the year 1900.

			В	IRTH	S.			,	MARRIAGES.					
		se	x.		PAREN	TAGE.			NATIVITY.					
COUNTIES.	Whole Number.	Males.	Females.	Native.	Foreign.	Native Father. Foreign Mother.	Foreign Father. Native Mother.	Whole Number.	Native.	Foreign.	Native Groom. Foreign Bride.	Foreign Groom.		
Bristol	361	193	168	77	196	49	39	85	44	20	13	8		
Kent	876	410	436	253	439	81	103	235	114	64	27	30		
Newport	784	416	368	316	336	70	62	257	133	55	32	37		
Providence	8,661	4,373	4,288	2,467	4,455	813	896	3,148	1,347	1,000	412	389		
Washington	402	203	199	275	73	35	19	211	162	17	15	17		
STATE INSTITUTIONS.														
WHOLE STATE	11,084	5,625	5,459	3,388	5,499	1,078	1,119	3,936	1,800	1,156	499	481		

### Table I.—Concluded.—Recapitulation.

General Summary of Deaths in the State of Rhode Island, by Counties, during the year 1900.

	DEATHS.														
	SE	ex.	NATI	VITY,		ES.		ATE AGE EARS.		GE AGE EARS.					
Whole Number.	Males.	Females.	Native.	Foreign.	Males.	Females.	Males.	Females.	Males,	Females.	Aggregate Ages.	Ауетаке Аке.			
297	155	142	230	67	155	142	5,254	5,456	33.89	38.42	10,710	36.06			
708	887	371	563	145	335	370	8,834	12,181	26.37	32.93	21,018	29.81			
610	316	294	509	101	313	293	10,910	12,919	34.86	44.09	23,829	39.06			
6,515	3,264	3,251	4,512	2,003	3,263	3,248	99,180	109,622	30.40	83.75	208,802	32.07			
439	234	205	389	50	234	205	9,458	10,038	40.42	48.96	19,496	44.41			
254	167	87	145	109	166	87	8,431	4,398	50.79	50.55	12,829	50.71			
s,823	4,473	4,850	6,348	2,475	4,466	4,345	142,067	154.617	31.81	35.58	296,684	33.67			

TABLE II.—BIRTHS, 1900. Arranged by Months, Sexes, and Divisions of the State.

					DI	VISI	ons o	F T	HE ST	ATE.		
MONTHS.	SEX.	Whole State,	Bristol County.	Kent County.	Newport County Towns.	Newport City.	Providence County Towns.	Central Falls.	Pawtucket.	Providence City.	Woonsocket.	Washington County.
January	Males	454	17	33	7	40	70	18	34	183	38	14
January	Females	454	14	33	5	26	77	25	47	167	38	15
			31	66	12					350		29
	Total	901	31	00	12	66	147	43	81	550	76	20
February	Males	447	15	28	15	25	65	26	36	180	41	16
	Females	437	12	30	6	26	67	28	53	165	35	15
	Total	884	27	58	21	51	132	54	89	345	76	31
				:								
March	Males	516	16	25	14	29	65	34	44	225	47	17
	Females	435	8	33	8	21	53	24	45	189	40	14
	Total	951	24	58	22	50	118	58	89	414	87	31
April	Males	445	12	40	6	23	64	27	44	171	33	25
21 prii:	Females.	412	9	39	6	16	46		48	167	39	
	Total	857	21	79			110	51	92	338	72	43
	10001,	0.71	±1	10	12	130	110	91	1/2	990	12	10
Мау	Males	405	20	32	2	28	61	15	42	156	36	13
	Females	416	14	25	11	23	60	26	32	172	37	16
	Total	821	34	57	13	51	121	-11	74	328	73	29
June	Males	472	13	39	11	18	76	21	38	197	40	19
	Females	431	20	41	8	22	54	26	40	159	45	16
	Total	903	33	80	19	40	130	47	78	356	85	35
July	Males	458	12	31	6	26	59	27	45	200	36	16
	Females	519	15	40	12	23	75	28	44	204	56	22
	Total	977	27	71	18	49	134	55	89	404	92	38
					1							

### TABLE II.—BIRTHS.—Concluded.

Arranged by Months, Sexes, and Divisions of the State.

-												=
					DI	VISI	ONS C	)F T	HE ST.	ATE.		
MONTHS.	SEX.	Whole State.	Bristol County.	Kent County.	Newport County Towns.	Newport City.	Providence County Towns.	Central Falls.	Pawtucket.	Providence City.	Woonsocket.	Washington County.
August	Males	520	16	34	10	31	88	33	54	194	46	14
	Females.	502	9	53	6	22	63	36	43	199	54	17
	Total	1,022	25	87	16	53	151	69	97	393	100	31
Cantamban	Males	467	18	90	7	0.5	62	0.5	20	200	40	10
September	Females	455	18	30	9	25 16	79		39 28	200 203	42	
	Total	922	30	61	16	41	141		67	403	88	
	1,0001	042	9()	01	10	-# f	191	4.6	01	400	00	20
October	Males	482	16	48	4	24	65	19	39	205	41	21
	Females	494	13	39	6	21	69	26	49	209	42	20
	Total	976	29	87	10	45	134	45	88	414	83	41
November	Males	471	16	40	6		57	26	50	199	36	
	Females	453	25	26	6	36	66		44	181	28	
	Total	924	41	66	12	61	123	50	94	380	64	33
December	Males	488	22	60	9	25	74	24	37	191	33	13
200011100211111	Females	458	17	46	5	1	48		50	187	31	20
	Total	946		106			122		87	378	64	
Whole Very	Malag	5 005	100	1.10	05	210	204	20*	-00	0.001	100	000
Whole Year	Males Females	5,459				319		295 315		2,301		
	Total	11,084				280				2,202		
		11,084	301	910	100	399	1,000	010	1,025	4,006	100	402

TABLE III.—PLURALITY BIRTHS.—1900.

Arranged by Months, Sexes, and Divisions of the State: and showing the Nativity of the Parents.

		Scotch Father. British-American Mo.	:	:	:	:	:	:	:	:	:	:	1	:		-
		German Mother.	:	:	:	:		:	:	:	:	:	:	÷	İ	-
		American Mother. Polish Father.	-	-:-	•	•		<u>:</u>	<u>:</u> -	-:-	•	· :		-:-	-	-
		Irish Father,	1:	:				:	:	:	:	:	:	:	ರಾ	
		French-Can, Fa. American Mother,		:	21	ಯ	:	:	:	:	:	:	:	ତା	1-	
	1	English Father. Irish Mother.	1:	:	$\vdash$	:	:			:		:	:		00	
		English Father. American Mother.	1	- <u>÷</u>	:		<u>-</u> -		:	:		÷			67	
	· c	British-American Fa. American Mother.	1:		:	:	:	:			:				-	
	TNS	Belgian Father. British-American Mo.	:	:	:		:	:	:		:		÷		-	
	AR.	American Father, Irish Mother,	1	:							<b>⊢</b>	:	-:	:	100	1
	THE PARENTS	American Father. English Mother.	-			-	:	_	:				÷	-	ရာ	
	E .	American Father. British-American Mo.	:	:				:						-:	ಾ	itv
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	NATIVITY OF	Swedish.	:	- <u>:</u>	:	:	:	:	C.3	_ :	-	-:	- :	-:-	00	Not including Providence city
	>	Scotch,	:	:	-	-	<u>:</u>	:	:	:	-	:	<u>:</u>	:	17	Pic
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		Irish.	-	•	<u>:</u>	÷	-			ा	•	4	<del>-</del>	<del>-</del>		ne]
		French-Canadian.	1	+		<del>-</del>	C.J	Н	33	_ 0J		ං ක	_	-	23.1	. L
	1	English.	<del> </del>					:			- :	_	c1		62	Z
		British-American.	:			÷	<u>:</u> -	÷						÷	00	-
		Austrian,	-:	·		÷	٠.	-	•	<u>:</u>	-:-		:-	-:	-	-
		Australian.		-:	-:		_:	-:-	· :	:-	· ·		·:	:	-	
		American.	-	co	٠ ده	ા	=	٠ •	c٥	Ø.	ಾ	ú	_0.1	4-	82	Δ
-	IE.	Washington County.	<u> </u>	:			:	:	-	:	:	:	:	-	10	Not including Newbort city
	STATE	Providence City.	ા	9	9	-	c)	10	30	Ĭ.C.	20	[-	4		49	w.por
	THE	Providence County.†	ଚୀ	ᅻ.	ಣ	+	9	50	9	ෙ	70	20	ෙ	-	17	Ne
	OF T	Newport City.	:	:	:		$\vdash$	:	_:	П	:	O1	-:-	ા	1-	ding
	SS	Newport County.*	:	:	:	:	:	:	:	:	:	:	:	:	:	inch
	210	Kent County.	:		:	O1		:	G3	Ç1	:	0.3	:	7	14	Not
	DIVISIONS	Bristol County.	:	_	:		21	:		:	:	7	:	:	10	*
=		Number of children.	£- 00	22	25.80	10 8	15	11	15	11	11	14	8 9	10	130	
					: 10		: 10	: :0	:	: 10	: 10	: 10		: 10		
		EX.	Males	Males Females	Males Females	Males Females	Males Females	Males	Males Females	Males Females	Males Females	Males Females	Males Females	Males Females.	Males Females	
		v.	NE	( Fe	Y Fe	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	) M.	{ NE	Ni	{ M.	Fe	M	ME	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	( Fe	
		Number of cases,	13	15	10	6.	15	10	15	11	10	17	1-	6	Whole Year., 127	
			:	:	:	:	:	:	:	:	:	:	:	:	:	
		<u>zi</u>	:		:				:	:	T.		Ĭ.	I	eal	
		TE	È.	11.	:	:	:	:	:	٠.	ηρe	ır.	ıbe	pe	1	
		MONTHS.	naı	rug	ch	=	:	:	:	sn	en	ope	en	em	ole	
		K	January	February	March	April	May	June	July	August	September.	October	November	December	JI.	
			J	F	7	7	7	J	F	F	1/12	0	1	D	=	

### Table IV.—MARRIAGES, 1900.

### Arranged by Months and Divisions of the State.

			]	)ĮVI:	SION	vs o	F T	нЕ	STATE	G.		
MONTHS.	Whole State, 1900.	Bristol County.	Kent County.	Newport County Towns.	Newport City.	Providence County Towns.	Central Falls.	Pawtneket.	Providence City.	Woonsocket.	Washington County.	Whole State, 1899.
January	326	7	23		15	31	13	42	158	28	11	262
February	308	7	23		15	21	18	38	145	24	13	221
March	129	2	5		10	12	3	10	61	10		131
First Quarter	763	16	51	11	40	64	34	90	364	57	36	614
April	331	3	19	3	13	33	12	32	182	22	12	360
May	255	4	20		5				120	21	15	203
June	527	20	21	6	26		24		261	35	22	406
	1,113	27	60			114		116	563	78	49	969
Coom (miles	,,,,,,											
July	277	5	25	4	15	27	14	30	123	22	12	213
August	281	8	21	6	15	23	7	30	137	19	15	267
September	394	7	19	4	24	47	20	35	185	24	29	322
Third Quarter	952	20	65	14	54	97	41	95	445	65	56	802
October	409	11	22	3	30	49	16	44	180	37	17	385
November	434	6	22	5	22	38	16	47	221	30	27	448
December	265	อ้	15	ő	16	24	5	26	127	16	26	215
Fourth Quarter,	1,108	22	59	13	68	111	37	117	528	83	70	1,048
Whole Year	3,986	85	235	51	206	386	161	418	1,900	283	211	8,433

TABLE V.—DEATHS, 1900. Arranged by Months, Sexes, and Divisions of the State.

					DIV	ISIO	NS OF	TH	Œ S	TATE.			=
MONTHS.	SEX.	Whole State,	Bristol County.	Kent County.	Newport County Towns.	Newport City.	Providence County Towns.	Central Falls.	Pawtucket.	Providence City.	Woonsocket.	Washington County.	State Institutions.
Tonnow	Molos	071	10	1 17	0	90		0	90	175	10	9.0	11
January	Males	371	13	17	6	20	47	6		175	19		14
	Females	362	11	28		15	46	9	31	174	16	19	5
	Total	733	24	45	14	35	93	15	59	349	35	45	19
February	Males	382	12	29	4	22	67	14	36	150	18	22	8
	Females	370	10	38	3	12	53	11	34	163	19	25	2
	Total	752	22	67	7	34	120	25	70	313	37	47	10
March	Males	458	11	30	8	18	64	21	38	216	18	21	13
	Females	457	17	35	10	18	68	15	41	198	27	22	6
	Total	915	28	65	18	36	132	36	79	414	45	43	19
A 20011	Molea	1/17	10	40	1.1	20	F0	15		105	0.5	01	-17
April	Males Females	465 $523$	13	46 61	19	20 28	58 57		44	195 224	25 28		17 10
	Total	988		107						419	53	41	27
	I Otal	2700	26	107	50	48	119	- 52	ยอ	419	9.5	41	21
May	Males	342	11	26	5	21	37	11	27	156	15	19	14
	Females	303	9	23	7	20	35	10	30	137	13	11	8
	Total	645	20	49	12	41	72	21	57	293	28	30	22
June	Males	292	8	19	8	17	32	8	22	126	18	17	17
	Females	295	10	27	5	18	27	17	19	135	22	16	4
	Total	587	18	46	13	30	59	25	41	261	40	88	21
July	Males	418	15	31	6	15	56	30	36	166	27	14	22
	Females	405	13	26	13	16	47	14	51	160	49	10	6
	Total	828	28	57	19	81	103	44	87	326	76	24	28

Table V.—DEATHS.—Concluded.

Arranged by Months, Sexes, and Divisions of the State.

	1				DIV	/ISI	ons o	FТ	HE:	STATE	· ·		
MONTHS.	SEX.	Whole State.	Bristol County.	Kent County.	Newport County Towns.	Newport City.	Providence County Towns.	Central Falls,	Pawtucket.	Providence City.	Woonsocket.	Washington County.	State Institutions.
August	Males	451	22	45	12	25	54	24	43	155	36	22	13
	Females	378	15	36	- 6	25	58	18	32	131	33	12	12
	Total	829	37	81	18	50	112	42	75	286	69	34	25
September	Males	336	14	28	7	18	45	15	24	130	20	23	12
	Females	327	11	28	10	12	42	17	31	113	30	24	9
	Total	663	25	56	17	30	87	32	55	243	50	47	21
October	Males	337	14	24	5	28	38	9	32	138	21	14	14
	Females	292	10	21	4	17	38	16	22	112	24	21	7
	Total	629	24	45	9	45	76	25	54	250	45	35	21
November	Males	281	10	23	8	10	32	8	29	115	16	22	8
	Females	300	16	22	8	6	34	14	34	121	23	15	7
	Total	581	26	45	16	16	66	22	63	236	39	37	15
December	Males	340	12	19	7	15	50	18	28	143	20	13	15
	Females	338	10	26	7	12	52	15	31	145	19	10	11
	Total	678	22	4.5	14	27	102	33	59	288	39	28	26
											-		
Whole Year	Males					229				1,865			
	Females									1,813			
	Total	8,823	297	708	187	423	1,137	352	792	3,678	556	439	254

### Table VI.—DEATHS, 1900.

Exhibiting the Whole Number, the Proportion to Population, and Number of each Sex, in every Town and Division of the State.

		900.	000 n.	DEATHS.	
TOWNS  AND DIVISIONS OF THE STATE.	Total Deaths.	Population, 1900.	Deaths per 1,000 of population.	Sex.	Number of each sex.
Barrington	21	1,135	18.5	Males Females	14 7
Bristol	170	6,901	24.6	Males Females	$\frac{94}{76}$
Warren	106	5,108	20.7	Males Females	47 59
Bristol County	297	13,144	22.6	Males Females	$\frac{155}{142}$
Coventry	105	5,279	19.9	Males Females	46 59
East Greenwich	70	2,775	25.2	Males Females	$\frac{34}{36}$
West Greenwich	18	606	29.7	Males Females	$\frac{6}{12}$
Warwick	515	21,316	24.2	Males Females	$\frac{251}{264}$
KENT COUNTY	708	29,976	23.6	Males Females	337 371
Jamestown	19	1,498	12.7	Males Females	9 10
Little Compton	27	1,132	23.9	Males Females	13 14
Middletown	22	1,457	15.1	Males Females	9 13
NEWPORT CITY	423	22,034	19.2	Måles Females	229 194
New Shoreham	33	1,396	23.6	Males Females	10 23
Portsmouth	34	2,105	16.1	Males Females	22 12

### TABLE VI.—DEATHS, 1900.—Continued.

Exhibiting the number of Deaths in each Period of Life, in every Town and Division of the State.

Under 1 year.	1 to 2.	2 to 3.	3 to 4.	4 to 5.	5 to 10.	10 to 15.	15 to 90,	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 and over. Age unstated.
3	2		1			1		2	1	1		1	3	2	
19 21	4			2	4 2	2	1	6 5	5 1	3 3	5 7	16 9	15 9	7	
19 10	1 3	4 1	$\frac{1}{2}$	1	3 1		2	1 5	·2 4	4	3 7	$\begin{array}{c} 2 \\ 10 \end{array}$	3	9 5	1 1
41 32	7 8	9	4 3	2 2	7 3	$\frac{1}{2}$	1 3	9 10	7 6	7 8	8 15	18 20	21 12	12 16	1 1
15 9	$\frac{2}{6}$	1 1	1	 1	$\frac{2}{1}$		1	2 4	5 2	2 3	4 5	3 4	5 14	. 4 6	1 1
7	1 2				2	1 2	2		3	3 3	3 5	5 8	3	5 5	2
1		1			1	1		1 1			$\frac{\dots}{2}$	3	2 1	1 1	
83 71	22 16	7	7 5	3	9	7 4	9 6	9 17	11 19	15 17	21 16	18 26	21 27	6 18	$\begin{array}{ccc} 1 & 2 \\ 3 & 1 \end{array}$
106 88	25 24	9	7 6	3 4	13 11	8 7	11 7	12 22	18 24	20 23	28 28	26 36	31 45	16 80	$\begin{array}{ccc} 2 & 2 \\ 6 & 1 \end{array}$
4 2							1			2		3	2		
3 2	• • • •							22 22	1	1	2 1	2	2 6	1	1
4 2	1	1	1						1		1 1	1	1 4	1 2	1
64 30	8	4 8	2 1	3 2	27	4 3	8 15	19 18	11 12	16 10	28 15	32 24	28 32	5 21	1 1 3 2 1
1	1					1	1		1	1 2	 G	1	4 7	1 2	1
5 2	1	1	1			••••		1	1	2	5 1		4	4 8	

Exhibiting the Whole Number, the Proportion of Population, and Number of each Sex, in every Town and Division of the State.

		.900.	,000 in.	DEATHS.	
TOWNS  AND DIVISIONS OF THE STATE.	Total Deaths.	Population, 1900.	Deaths per 1,000 of population.	Sex.	Number of each sex.
Tiverton	52	2,977	17.5	Males Females	24 28
NEWPORT COUNTY	610	32,599	18.7	Males Females	316 294
Burrillville	111	6,317	17.6	Males Females	57 54
CENTRAL FALLS	352	18,167	19.4	Males Females	179 173
Cranston	188	11,114	16.9	Males Females	98 90
Cumberland	154	8,925	17.3	Males Females	77 77
East Providence	211	12,138	17.4	Males Females	102 109
Foster	19	1,151	16.5	Males Females	11 8
Glocester	32	1,462	21.9	Males Females	18 19
Johnston	70	4,305	16.3	Males Females	35 35
Lincoln	148	8,937	16,6	Males Females	79 69
North Providence	42	3,016	13.9	Males Females	21 21
North Smithfield	39	2,422	16.1	Males Females	25 14
Pawtucket	792	39,231	20.2	Males Females	387 405
Providence City	2,678	175,597	20.9	Males Females	1,865 1,813

Exhibiting the number of Deaths in each Period of Life, in every Town and Division of the State.

						_										_
Under 1 year.	1 to 2.	2 to 3.	3 to 4.	4 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30,	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 and over.	Age unstated.
10 10	1		1					1		2 1	4 2	2 4	3 4	3		
91 49	12 11	5 5	4 2	3 2	3 7	4	9 7	22 22	13 17	20 17	35 26	38 34	37 56	15 30	2 4	3 1
14 16	2 2		1		1	1		5 2	6 4	7	5 8	5 8	7 9	3		
63 41	21 8	5 5	4	1	9 8	2 5	2 3	5 17	17 13	12 12	19 25	8 11	8 17	3 2	1	
23 17	6 10	2 5	1	2 2	10 4	1	2 2	5 3	5 2	4 2	12 11	11 16	10 7	4 8		
$\frac{20}{12}$	2 5	1	1	2 1	1	4	4 2	9	6 9	3 6	6 6	5 15	7 11	4	2	$\frac{1}{2}$
21 22	3	2	1 3	4	1 4	3	21 21	6 5	3 7	8 7	15 13	15 10	8 10	10 10	1	
1					1				 1	1	$\frac{2}{1}$	1	2 2	4 1		
· · · 3								 3	1	1 1	$\frac{1}{2}$	2 3	3 4	3 1	1 1	
12 7	21 33	1	2		3	1	1	3 4	1 1	1 1	3 3	7 5	3	3		
26 20	13 6	4		2	4			6	4 2	8 8	$\frac{2}{9}$	10 5	5 6		1	
3	1	3		1		1	2 1	8 3	3 2	1	1 1	1	$\frac{2}{1}$	1 3		
2	2	1	1				2	1 2	2	3		6	4	1 1		
106 98	26 17	9	9	4 2	15 10	6 3	4 9	24 32	24 25	26 26	41 41	45 49	36 46	8 28	4	
444 361	111 115	58 34	37 26	20 24	63 44	19 15	36 47	157 179	171 150	179 144	198 183	171 193	139 183	58 98	4 17	

Exhibiting the Whole Number, the Proportion of Population, and Number of each Sex, in every Town and Division of the State.

		.000.	000	DEATHS.	
TOWNS  AND DIVISIONS OF THE STATE.	Total Deaths.	Population, 1900.	Deaths per 1,000 of population.	Sex.	Number of each sex.
Scituate	69	3,361	20.5	Males Females	34 35
Smithfield	54	2,107	25.6	Males Females	28 26
WOONSOCKET	556	28,204	19.7	Males Females	253 303
Providence County	6,515	326,454	19.9	Males Females	3,264 3,251
Charlestown	17	975	17.4	Males Females	6 11
Exeter	18	841	21.3	Males Females	7 11
Hopkinton	44	2,602	16.9	Males Females	28 16
Narragansett District	20	1,523	13.1	Males Females	11 9
North Kingstown	72	4,194	17.2	Males Females	38 39
South Kingstown	99	4,972	19.9	Males Females	47 52
Richmond	28	1,506	18.6	Males Females	17 11
Westerly	141	7,541	18.7	Males Females	85 56
Washington County,	439	24,154	18.2	Males Females	234 205
STATE INSTITUTIONS	254	2,229	113.9	Males Females	167 87

### TABLE VI.—DEATHS, 1900.—Continued.

Exhibiting the number of Deaths in each Period of Life, in every Town and Division of the State.

Under 1 year.	1 to 2.	2 to 3.	8 to 4.	4 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 and over.	Age unstated.
5 8	1		1			1	1 1	$\frac{1}{2}$	2	1 3	3	5 8	9 7	4	1 1	
5 5	2 1		1		$\frac{1}{2}$		1 1	1 3	1	2	2 2	6 2	6 7	1 2		
103 114	21 11	7 5	4 8	4 8	8 9	6 4	7	17 32	10 21	12 14	20 19	15 20	13 17	5 13	1 1	
848 734	213 189	92 68	61 49	40 40	115 86	44 32	62 81	243 295	$255 \\ 239$	$\frac{264}{229}$	331 319	311 348	262 333	109 179	13 27	1 3
2 1											2	$\frac{1}{2}$	2 2	4		
			 1				 1	1		3	2	1	2 2	2 2		
5 2		1					1	. 1	1 1	2	3	3 4	5 3	6 1	1	
$\frac{2}{2}$	1					1		2 1	$\frac{1}{2}$	1			1 1	1 1		
5 4	3 1	1	 1				1 1	$\frac{3}{2}$	3 2	3 2	2 8	3	7 9	 5	1	
$\begin{array}{c} 11 \\ 7 \end{array}$	4 2	1 1			1 1		$\frac{1}{2}$	2 6	2 2	1 5	4 7	$\frac{10}{2}$	4 9	6	2	
3					1	1	2	$\frac{1}{2}$	1	1	3	1	3 2	1 2		
20 6	3 1	1 2	2	2 1	1	4	2	6 2	3	9 6	8	7 8	11 8	11 6	1	
48 22	12 4	3 4	3 2	2	4	6 3	8 7	15 14	8 11	14 20	21 30	26 20	35 36	27 27	$\frac{2}{3}$	
4 3						2	5 2	8 8	25 13	38 17	24 10	31 15	14 13	12 4	3 2	

3

### (RECAPITULATION.)

Exhibiting the Whole Number, the Proportion to Population, and Number of each Sex, in every Division of the State.

		.00	3.	DEATHS.	
DIVISIONS OF THE STATE.	Total Deaths.	Population, 1900.	Deaths per 1,000 of population	SEX.	Number of each Sex.
Bristol County	297	31,144	22.6	Males	155 142
KENT COUNTY,	708	29,976	23.6	Males	337 . 371
Newport County	610	32,599	18.7	Males	316 294
Providence County	6,515	826,454	19.9	Males	
Washington County	439	24,154	18.2	Males	234 205
STATE INSTITUTIONS	254	2,220	113.9	Males	167 87
Whole State	8,823	428,556	20.6	Males	4,473 4,350

### TABLE VI.—DEATHS, 1900.—Concluded.

### (RECAPITULATION.)

Exhibiting the number of Deaths in each Period of Life, in every Division of the State.

																=
Under 1 year,	1 to 2.	2 to 3.	3 to 4.	4 to 5,	5 to 10,	10 to 15.	15 to 20.	20 to 80,	30 to 40.	40 to 50.	50 to 60.	6b to 70.	70 to 80.	80 to 90.	90 and over.	Age unstated.
44	-					-1				-	0	4.0	01	10		
41	7	9	4	2	7	1	1	9	7	7	8	18	21	12	1	
32	8	1	3	2	3	2	3	10	6	S	15	20	12	16	1	
																ĺ
106	25	0	7	3	13	8	11	12	18	20	28	26	31	16	2	2
88	24	9	6	4	11	7	7	22	24	23	28	36	45	30	G	1
91	12	5	4	3	3	4	9	22	13	20	35	38	37	15	2	3
49	11	5	2	2	7	4	7	22	17	17	26	84	56	30	4	1
848	213	92	61	40	115	44	62	243	255	264	831	311	262	109	13	1
784		68	49			32		295								
154	199	08	49	40	86	52	SI	295	239	229	319	348	333	179	27	3
48	12	5	3	2	4	6	8	15	8	14	21	26	35	27	2	
22	4	.1	2	1	1	3	7	14	11	. 20	30	20	36	27	1)	
				2												
4						2	5	8	25	38	24	31	14	12	3	1
8							2	8	13	17	10	15	13	4	2	
1138	269	118	79	50	142	65	96	309	326	363	447	450	400	191	23	7
928		87	62	49	108	48	107		810	314	428	473	495	286	43	5
1,20	200	(1	02	10	100	40	101	1)   1	1010	714	3.4417	710	+(1)	200	*(1)	U
									1							

# TABLE VII.—CAUSES OF DEATH, 1900.

Arranged Alphabetically; showing the Number of each Sex who died from each cause, in each month and in the whole year 1900; also the Number of Native-born and Foreign-born, and also the Number of Native and of Foreign Parentage, from each cause, for the year.

CATISES OF DEATH	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.		Oct.	Nov.	Dec.	NATIVITY	PARENT-	NT-	SEX.
Acces of Death.	M. F.	M. F.	M. F.	M. F.	M. F.	. M. F.	. M. F.	M. F.	X.	F. M.	F. M	<u> </u>	M. F.	Am. For.	Am.	For.	M. F.
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Mouth. Neck		: :	: :	: :	: :	: :	: :	: :	∺ :	: :	::	-::	: :	2		: -	:
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Stomach Sub-Phrenic Accidents, Asphyxia	: : : 4	: : : : : : : : : : : : : : : : : : :	· · · · · · ·	: : : 61	: : : m	 		: : : : : : : : : : : : : : : : : : : :	: : : : : :		: : : -		2 : : :	23 6	1	16	
Bicycle  Burns and Scalds.  Drowning  Electric Car.	6 2 2 :		3 1 3:	2	: H m	2 1 2 1 2 6	2 4	10 2	: : 07	2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	:0:03	: 27 : :	- 27	23 10 23 10 38 26 13 6	188	1 26 46 10	$\begin{vmatrix} 1 & 1 \\ 14 & 1 \\ 54 & 1 \\ 15 & 1 \end{vmatrix}$

FORTY-EIGHTH REGISTRATION REPORT.

TABLE VII.—CAUSES OF DEATH, 1900.—Continued.

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Table VII.—CAUSES OF DEATH, 1900.—Continued.

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Table VII.—CAUSES OF DEATH, 1900.—Continued.

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Table VII.—CAUSES OF DEATH, 1900.—Continued.

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Table VII.—CAUSES OF DEATH, 1900.—Continued.

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Table VII.—CAUSES OF DEATH, 1900.—Continued.

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CAUSES OF DEATH.		Homicide	Hydronephosis Icterus Neonatorum	Infantile	Influenza	Intestinal Obstruction	Insanity	General Paralysis of the In	sane	Intussusception	Addison's Disease	Bright's Disease	Granular Degeneration	Laryngitis	Tubercular	Liver Diseases*	Atrophy, Acute, Yellow	Chrhosis

\* Not otherwise placed.

Table VII.—CAUSES OF DEATH, 1900.—Continued.

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CAUSES OF DEATH.		Liver, Congestion  Enlargement Hypertrophy Inflammation Sclerosis Locomotor Ataxia Leukemia Malaria.  Malaria.  Malasimilation Malformation, Imperforate Anus. Arterial Duct. Foramen Ovale. Heart Hemicephalus Spina Bifida Urethra. Urethra. Unspecified. Mania, Acute. Chronic.	Measles. Melancholia. Meningitis. Cerebro-Spinal.

TABLE VII.—CAUSES OF DEATH, 1900.—Continued.

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Table VII.—CAUSES OF DEATH, 1900.—Continued.

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Table VII.—CAUSES OF DEATH, 1900.—Continued.

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\* Not otherwise specified.

Table VII.—CAUSES OF DEATH, 1900.—Concluded.

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TABLE VIII.—CAUSES OF DEATH, 1900.

Arranged Alphabetically; showing the Number of each Sex who died from each cause, in each Period of Life.

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90 and over.	M.	
80 to 90.	E.	
	F. M.	: : : : : : : : : : : : : : : : : : :
70 to 80.	Z.	: -::::::::::::::::::::::::::::::::::::
60 to 70.	M. F.	
50 to 60.	F	::::::::::::::::::::::::::::::::::::::
	F. M.	
40 to 50.	M.	: : : : : : : : : : : : : : : : : :
30 to 40.	F.	
	F. M	::::::::::::::::::::::::::::::::::::::
20 to 30.	Ĭ.	: : : : : : : : : : : : : : : : : : :
15 to 20.	M. F	: : : : : : : : : : : : : : : : : : :
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		Abscess, Alveolar. Brain. Brain. Kidney. Leg. Liver. Mastoid Mouth. Neck. Ovary. Pelvis. Peritoneum. Stomach. Stomach. Stomach. Stowach. Elevator. Elevator. Elevator. Files modation. Lightning. Machinery.
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Table VIII.—CAUSES OF DEATH, 1900.—Continued.

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Accidents, Lead Poison Railroad Various Adenitis, Multiple Albuminuria Alcoholism Delirium Tremens Pernicious Angina Pectoris Apoplexy and Paralysis Apthma. Atheroma of Arteries. Atheroma of Arteries.	Drain Discuses Congestion Softening Inflammation Chronic Calculi, Renal Cancer of Abdomen. Abdominal Viscera Back Bladder Breast

Table VIII.—CAUSES OF DEATH, 1900.—Continued.

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	10 to 15.	L.E.	
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			Cancer of Colon Ear. Face. Intestine. Jaw Kidhey Larynx Leg Lip Lip Lip Liver Ling Nouth Neck Nose Omentum Ovary Pelvic Viscera. Pelvic Viscera. Pelvic Pelvic Pelvic Pelvic Pelvic Piscera. Prostate Phorynx Pleura Prostate Prosta
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Table VIII.—CAUSES OF DEATH, 1900.—Continued.

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CAUSES OF DEATH.		Vagina. Vagina. Unspecified. Cancrum Oris Carbuncle. Carbuntis. Pelvic Cerebritis. Childbirth.* Casarean Section. Miscarriage. Neoplasm of Cord, Embolism Indegmatia Dolens. Placenta Previa Hemorrhage. Post-partum Hemorrhage.	Prolonged and Difficult Labor.  Puerperal Eclampsia.  Puerperal Nephritis.  Puerperal Peritonitis.  Prerperal Septicemia.  Prirombus following Child-	
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Not otherwise placed.

Table VIII.—CAUSES OF DEATH, 1900.—Continued.

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CAUSES OF DEATH.		Chorea Colitis (under 2 years). Entero (under 2 years). Entero (under 2 years). Entero (over 2 years). Entero (over 2 years). Constipation. Constipation. Convulsions, Infantile. Croup. Membranous. Cystitis. Cystitis. Debility, General Infantile. Asphyxia, Neonatorum Difficult Labor. Injury at Birth. Paralysis, Infantile. Permature Birth. Selerema Neonatorum Want of Care. Debility, Senile. Debility, Senile. Diarrhoea. Chronic. Diabetes. Mellitus. Diphtheria. Diphtheria.

TABLE VIII.—CAUSES OF DEATH, 1900.—Continued.

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TABLE VIII.—CAUSES OF DEATH, 1900.—Continued.

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60 to 70	M.	889 · · · · · · · · · · · · · · · · · ·	=
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50 to 60.	M.		24
40	E.		_
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30 to 40.	M. F		_{
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Table VIII.—CAUSES OF DEATH, 1900.—Continued.

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CAUSES OF DEATH.	N.	Insanity, General Paralysis of the Insane Intussusception Kidney Diseases* Addison's Disease Bright's Disease Granular Dogeneration Inflammation Laryngtits. Twbercular Tybercular Tybercular Cirrhosis Congestion Enlargement Ifypertrophy Inflammation Sclerosis Locukarnia Malaria. Malaria. Malaria. Malaria. Malaria. Malformation, Imperforate Anus Arterial Duct Foramen Ovale. 11 Foramen Ovale. 12 Hemicephalus. 14

Table VIII.—CAUSES OF DEATH, 1900.—Continued.

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SEX.	N.	
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필요 .	压	: : : : : : : : : : : : : : : : : : :
]	E N.	
Under 1.	N.	. 33 1. 23
CAUSES OF DEATH.		Malformation, Uretha Unspecified Mania, Acute Chronte Meales Melhucholia Melhucholia Meningitis Cerebro-Spinal Spinal Tubercular Myelitis. Myocarditis Myocarditis Chronic Neuralgia Neuralgia Neuralgia Neuralgia Neuralgia Neuralgia Perrarditis Perricarditis Perricardit

Table VIII.—CAUSES OF DEATH, 1900.—Continued.

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J	E.	:04-281-::::0101
SEX.	M.	<u>Ст.:::польтенные:::;польтенные</u>
ed.	5	
Age not stated	M.	
90 and over.	12	
	M.	
80 to 90.	7	
	.M.	***************************************
70 10 80.	M. F.	
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60 to 70.	M.   F.	# · · · · · · · · · · · · · · · · · · ·
	E	::::::::::::::::::::::::::::::::::::::
50 to 60.	M.	::::::::::::::::::::::::::::::::::::::
40 to 50.	걸	:-:-::
4 O	Z	:-::::::::::::::::::::::::::::::::::::
30 to 40.	<u>5-</u>	:::4::34 :::3::::::::::::::::::::::::::
	M.	;;;;;=@@;;;;;=;;;;;;;;;;;;;;;;;;;;;;;;
20 to 30.	2	::::m=::::::::::::::::::::::::::::::::
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15 to 20.	E .	
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10 to 15.	M.   F.	
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0 to 30 s. s. s. s. s. s. s. s. s. s. s. s. s.	Ξ.	:::::=::::::::::::::::::::::::::::::::
	M.	::::::=:::::::::::::::::::::::::::::::
l and under	E:	
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Under 1.	=	
=	N	1
CAUSES OF DEATH.		Prostate Disease Purpura Hemorrhagica Pyemia Pyo-salpinx Quinsy Rachitis Rachitis Acute Chronic Rodent Uleer Sarcoma of Face Jaw Liver Pervis Rectum Stomach Testicle Uterine Organs Oxtero, Heum, and Ischeum Stonach Testicle Scorbutus Scarlet Fever Scorbutus Scorbutu

Table VIII.—CAUSES OF DEATH, 1900.

SEX.	Ξ.   οΤ	
	z	:: : : : : : : : : : : : : : : : : : :
Age not stated.	M. F.	
90 and over.	M. F.	
80 to 90.	M. F.	
70 to 80.	M. F.	
60 to 70.	M. F.	: : : : : : : : : : : : : : : : : : :
50 to 60.	M. F.	-m : : : : : : : : : : : : : : : : : : :
40 to 50, t	표	: : : : : : : : : : : : : : : : : : :
30 to 40.	F. M.	. त : : न : : : : वनवा : : : : : : : : : : : : : : : : : : :
20 to 30, to	F. M.	:u : : : : : : : : : : : : : : : : : :
15 to 20. to	F. NI.	
	F. M.	
0. to 15.	F. M.	, m
5 to 10.	F. M.	
4 to 5.	zi.	
# to 4	M. F.	
0 10 3.	M. F.	
1 and under	М. F.	
Under 1.	M. F.	ं : : : : : : : : : : : : : : : : : : :
CAUSES OF DEATH.	N. N.	Stomach Diseases * Ulecration Stricture of Gisophagus. Urethra. Suicide by Poison, Carbolic Acid. by Choroform by Choroform by Cyanide Potassium by Charis Green. by Paris Green. by Prowning by Hamging. by Huminating Gas. by Jumping from Window by Shooting. Shooting. Syphilis. Congenital. Synovitis of Knee. Tabes Dorsalis. Mesenterica. Tetanus Neonatorum. Thrombosis, Cerebral. Trachettis. Trachettis. Trachettis. Thererulosis of Buttock. Salpingitis Tuberculosis of Brain. General.

\* Not otherwise placed.

Table VIII.—CAUSES OF DEATH, 1900.—Concluded.

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SEX.	- i	: 01 - 21 01 01 : : - : - : - : - : - : - : - : - : -	50
8 + B	52		:
Age not stated	M.		:
925	运		
90 and over.	Z.		
0.80	E		
80 to 90	Z.	;;; <sup>21</sup> ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	_
70 to 80.	=	::: <sub>1-</sub> :::::::::::::::::::::::::::::::::	::_
	N.	:::: # ::::::::::::::::::::::::::::::::	
60 to 70.	<u>[-</u>	:::50::::::::4 ::	
The second second	M.	:1:2:::::::::::::::::::::::::::::::::::	4
50 to 60.	균.	: : : ; ; : : : : : : : : : : : : : : :	:
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40 to 50.	Ξ.		ೞ
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30 to 40.	=	::::22::-::::::::::::::::::::::::::::::	:
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20 to 30.	M.	120 131	23
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15 to 20.		: : : : : : : : : : : : : : : : : : :	
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10 to 15.			
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to 10.	M.		
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to 5.	M		
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20 to 3.	M.		
- tg	F.		
1 and under 2.	M.		:
	E.		:
Under 1.	M.	<u> </u>	
•		Celiot	:
CAUSES OF DEATH.		Tuberculosis of Hip.  Kidmey. Leg. Pulmonary. Pumor, Abdomen. Brast. Gall Bladder. Intra-Thoracic. Intestine. Laryngeal Ovary Stomach. Uterus. Uremia. Cremia. Cremia. Crems. Retroversion C	по учл
CAUSI		Tuberculos Kidney Leg Pulmona Tumor, Ab Brain Brain Gall Blatc Intra-The Intestine Laryngea Ovary Stomach. Uterus Uremia Uremia Varicose U.	Cause Unknown

Table IX.—CLASSIFICATION (Berlillon) AND PERCENTAGE.—1900.

Mortality in the State and in each Division ascribed to each Canse and Class of Canses.

	Bristol County.	100,00	99.66	.54		29.97	7.74
ON.	Kent County.	100.00	99.72	.28		25.43	10.31
DIVISI	Newport County Towns.	100.00	99.47	ž.		19.78	17.65
EACH	Newport City.	100.00	99,76	.24		28.37	14.66
NI SII	Providence County Towns.	100.00	99.50	.50		29.55	15.17
DEAT	Central Falls.	100.00	99.87 100.00	:		24.15	9.95
PERCENTAGE OF DEATHS IN EACH DIVISION.	Рамипскет.	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00		.13		30.18	9.85
CENTA	Providence City.	100.00	99.65	.55		31.08	8.51
PER	Moonsoeket.	100.00	99.46	.54		26.98	8.99
	Washington County.	100.00	99.09	.91		28.25	11.39
tate.	Percentage in Whole S	100.00	99.63	.37		29.22	10.52
Control of the Contro	CAUSES OF DEATH.	3,678 556 439 8,823 ALL CAUSES	3,665 558 485 8,790 CAUSES SPECIFIED	33 CAUSES UNSPECIFIED	CLASSES.	I. 2,578 General Diseases	II. 928 Diseases of the Nervous System and the Organs of Special Sense.
	Whole State.	8,823	8,790	65		9,518	
NC	Washington County.	439	435	-4		124	50
1810	Woonsocket.	556	555	ಾ		150	0.0
VIG II	Providence City.		3,665	13		1,145 150 124	313
EAC TE.	Раменскее.	792	162			S5 239	1 <u>-</u>
IN	Central Falls.	352	352	:		S	95.
NUMBER OF DEATHS IN EACH DIVISION OF THE STATE.	Providence County Towns.	297 708 187 423 1,391 352 792	296 706 186 422 1,384 352 791	1-		411	211
P DE	Newport City.	423	ल्			37 120	62
3 01	Newport County	187	186	-		00	33
BEI	Kent County.	-S01	901	ତା		89 180	65
NUN	Bristol County, ,	297	296	_		S.	co C1

1900.]	CI	ASSIFICATIO	ON AND PER	CENTAGE.		41
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6.4	86 21	6.55	5.88	1.07	1.07	
		<u> </u>	64	F.	:	•
10.8	11.5	15.1	4.49			
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7.10		1.00	5.68	.S.	.28	į.
	段.	<u> </u>	:8		=======================================	<u> </u>
œ.	14.(	17.]	6.72 9.34 3.78 7.61 5.55	.91 1.44 1.28 1.26	7.	.03 81. 60.
8.	os.	.s9	9.	.28	7.	9.
1-	16		1- ,			
6.63	ତି ବ୍ୟ	9.85	3.78	1.4-1	.18	:
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10.9	10.0	15	Ġ.		Ġ.	
1.	51	:1: :	61	1.12	ei 6	.10
	- 15	-16				
TI5 DISEASES OF THE CIRCULA- 8.11 10.95 6.65 7.88 8.58 7.10 8.27 10.87 6.42 7.20 7.74 TORY APPARATUS.	44 1,345 Diseases of the Respira- 15.21 10.02 12.23 16.80 14.65 21.31 13.80 11.35 12.83 17.80 10.78 Tory Apparatus.	V. H166 68 1,423 Diseases of the Digest-16.13 15.49 29.85 13.89 17.17 21.59 12.37 15.13 16.59 19.78 19.87 IVE APPARATUS.	VI. 593 DISEASES OF THE GENTTO- URINARY APPARATUS AND ITS ADNEXA.		VIII. 25 DISEASES OF THE SKIN AND GELLULAR TISSUE.	IX. 9 DISEASES OF THE ORGANS OF LOCOMOTION.
E C	HE HE	V. ASES OF THE DIVE APPARATUS.	VI. ES OF THE ( RY APPARAT (TS ADNEXA	VII. 99 Puerperal State	TES	IX. ASES OF THE OR OF LOCOMOTION,
HI.	TY.	V. F. T.	VI.	VII.	VIII. FTHI	IX.
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25	32 126	59140	50	¢1		21

TABLE IX.—CLASSIFICATION AND PERCENTAGE, 1900.—Continued.

1	,	Bristol County.	1.01	5.69	5.05	6.40	<u>ું</u>
	ON.	Kent County.	86.	4.24	4.80	5.09	.28
EACH DIVISION.	Newport County Towns.	:	4.27	8.56	5.35	.53	
	ЕАСИ	Newport City.	16:	4.03	6.15	5.51	.24
		Providence County Towns.	.65	2.30	3.52	4.53	.50
	PERCENTAGE OF DEATHS IN	Central Falls.	.S5	es.13	.28	4.26	:
	GE OF	Pawtucket.	15.	4.16	3.03	4.67	.13
	CENTA	Providence City.	70	4.43	1.93	5.25	.65
	PER	Woonsocket.	.36	3.78	1.62	3.60	.54
		Washington County.	:	2.28	5.24	5.01	.91
	tate.	Percentage in Whole S	53.	6.77	3.04	4.86	. 38
		CAUSES OF DEATH.	X. 47 MALFORMATIONS	SSS EARLY INFANCY	XII. Old Age	XIII. AFFECTIONS PRODUCED BY EXTERNAL CAUSES.	XIV. 33 ILL-DEFINED DISEASES
		Whole State,	1-	5555	568	429	65
	NO	Washington County.	:	10	çç	अ	7
	DIVISION	Woonsocket.	71	21	6.	20	භ
		Providence City.	051	163	-11	193	13
	EAC TE.	Рауусиекес.	7	60 60		65	1
	STA	Central Palls.	ෙ	11		15	:
	NUMBER OF DEATHS IN EACH OF THE STATE.	Providence County Towns,		60	9	89	1-
	DE.	Newport Clty.	+		9 9	17	
	ROF	Newport County Towns.	:	····	16	10	
	MBEI	Kent County.	ره د	30	÷ ;	98	©1
	NU	Bristol County.	ବତ	S)	15	19	1

		1.35	1.35	:	1.85	:	1.85	1.35	÷:	5.69	:	1.68	:	:		8.41	1.01
		.83	.14	:	55 55 55 55	-14	.85	1.98	1.13	1.98	16.	1.98	<u> </u>		1.	5.65	17
		1.60	 	:	:	1.60	1.60	:		2.14	1.07	1.07	:	:: :::	:	77.	
		1- 51	çi 4	:	:	17.	:	1.89	1.45	31 48.51	.+7	.71	5. 4.	:	:	9.93	21
		1.51	95.	:	2.16	09.	98.	.65	9.6.	3.00	6.	.79	.07	:	.07	7.39 10.28	<del>1</del> .
		1.70	821	61	1.45	īğ.	s.	.57	.85	1.42	821	1.14	:	:	31		iŝ.
		1.01	25.		1.52	16.	.63	1.14	1.64	7.45	:	88.	.25	:	:	& 	1.14
		1.05	.19	:	5.69	.30	1.25	09.	\$.	3.66	.16	89.	42.	.03	<del>†</del> -	9.71 11.26	1.98 1.28
		1.44	:	:	.18	†g:	.90	1.26	4.86	06:		1.44	.18	.18			1.98
		51 55		:	2.05	:	.46	89.	2.05	1.50		1.59		:	:	7.55	1.14
		1.+	†?:	.01	2.10	.39	76:	88.	1.27	. S. S.	.20	76.	.19	70.	60.	9.63	1.09
ı.	CENERAL DISEASES.	Typhoid Fever	{ Fever, Intermittent, } and Maiarial Cachexia }	Variola	Measles	Searlatina,	Whooping Cough	Diphtheria and Croup	) Diphtheria	Grippe	Cholera Nostras	Dysentery	Erysipelas	<pre>{ Purulent Infection and } { Septicamia</pre>	Tuberele of the Larynx	Tuberele of the Lungs	Tuberele of the Meninges
	CENERAL DISEASES.	127 Typhoid Fever	21 { Fever, Intermittent, } and Malarial Cachexia }	1 Variola	185 Measles	34 Searlatina,	86 Whooping Cough	78 Diphtheria and Croup	21	255 Grippe	18 Cholera Nostras	86 Dysentery	17 Erysipelas	4   Septicamia	S Tuberele of the Larynx	S50 Tuberele of the Lungs	s9 Tuberele of the Meninges
	GENERAL DISEASES.	12 127 Typhoid Fever	,		9 185 Measles	:	2 86 Whooping Cough			7 255 Grippe	18 Cholera Nostras	7 86 Dysentery	17 Erysipelas		s Tubercle of the Larynx	33 S50 Tuberele of the Lungs	5 89 Tubercle of the Meninges
·i	CENERAL DISEASES.	8 12 127 Typhoid Fever	55	1 Variola	1 9 185 Measles			<u></u> 1	21	5, 7 255 Grippe				7	D	54 33 S50 Tubercle of the Lungs	
-i	GENERAL DISEASES.			:	99 1 9 185 Measles	:	C١	25 \$\frac{1}{\Sigma}	9 112	1-		1-	:	7	× :		10
-i	General Dispasss.	x		:		:	61	25	27 9 112	1 <del>-</del>	:	T-		7	× :	7	=
-i	(FENERAL DISEASES.	8 68	51	:	99 1	:	62 22 29	22 7 3	31 27 9 112	1- 13 86	:	25 8 -7	9 1	7	× :	414 54	= 17
	GENERAL DISEASES.	8 68 8 8	21	:	12 99 1	1 2:	5 46 5 2	9 22 7 3 78	15 31 27 9 112	59: 98 5. 7		15 S S 17 17	9 1	7	× :	06 414 54	2 11 27 6
	(Peneral Diseases.	8 8 8 9 9	62	:	5 12 99 1	11 4 11 ::	3 46 5	9 6 6 6 7 8 7 8	3 15 31 27 9 112	5 59, 98 5, 7	6	1 25 8	9 1	7	× :	26 66 414 54	6 11 11 6
i	GENERAL DISEASES.	21 6 8 39 8	62	:	30 5 12 99 1	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	11 3 5 46 5	9 2 2 7 3 78	13 3 15 31 27 9 112	43 5 59 98 5 7	6	11 1 25 8	1 1	7	× :	143 26 66 414 54	6 11 11 6
	(Peneral Diseases.	20 21 6 8 39 8	62	:	30 5 12 99 1	50 T- 51 T- 50	11 8 5 46 5 2	8 9 92 7 3 78	13 3 15 31 27 9 112	12 43 5 59 98 5 7	21	25 F 25 S F F 7 S	21 C 21	7	× :	42 148 26 66 414 54	6 11 11 6

Table IX.—CLASSIFICATION AND PERCENTAGE, 1900.—Continued.

	Bristol County.		:	:	:	1.01	:	<del>1</del> 60	:	00.00	:
0N,	Kent County.	.28	:	:	:	.14		.14	:	66.	:
DIVISI	Xewport County Towns.		1.07	:	:	:	:	:	:	65	7.G 65
БАСП	Newport City.	42.	:	:	£2.	:	:		:	1.49	:
z Z	Providence County Trowns.	.50	:	.07	.14	.43	.14	.29	.07	1.08	.36
DEAT	Central Falls.	:	:	:	:	:	:	. 28	:	1.14	.28
PERCENTAGE OF DEATHS IN EACH DIVISION.	Pawtucket.	.51	:	:	:	i		88.	.13	1.39	.13
CENTA	Providence City.	.19	.11	:	.11	.44	:	.30	.19	1.37	.51
PER	Woonsocket.	.18	:	:	:	.18		.36	.36	.90	
	Washington County.	.68	:	:	:	:		:	:	2.73	
tate,	Percentage in Whole S	85.	.07	.01	.08	.30	.03	.30	.12	1.37	
	CAUSES OF DEATH.	25 Tubercle, Abdominal	6 Potts' Disease	Abscess, Cold and by Congestion	Tubercle of Other Organs	27 Generalized Tubercle	Serofula	Syphilis.		etc., of and Live	Cancer, etc., of the Peritoneum, Intes- tines, and Rectum
	Whole State.	50	9	-	1-	51	ा	27	T	121	61
NO	Washington County.	ಾ	:	:	:	:	:	:	:	15	:
187	Woonsocket.	-	:	:	:		:	31	ગ	,:	:
H DIVISION	Providence City.	1-	: +	:		16 1		111 29	े। - 1-	- 00 :	19
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EACH TE.	Providence City.	7	+		:	16 1	:	1 7 11	1 -7	4 11 50	1 1
EACH TE.	Рамеиекес. Providence City.	7	+	1	· · · · · · · · · · · · · · · · · · ·	1	61	11	1 1	15 4 11 50	ŏ 1 1
EACH TE.	Towns. Providence City. Providence City.	7	+	1	:	16 1	:	1 7 11	1 1 2	6 15 4 11 50	   
EACH TE.	Providence County Pawns. Central Falls. Pawtucket.	1 4	7	1	:	16 1	; ;	1 7 11	1 1	1 6 15 4 11 50	ŏ 1 1
IN EACH STATE.	Providence City, Providence City, Providence Connty, Panls, Panls, Panls, Panls, Panls, Panls, Panls, Panls, Panls, Providence City, Providenc	- 1 - 4	: :: :: ::			$\cdots$ $6$ $\cdots$ $16$ $1$	; ;	1 7 11	1 1	6 15 4 11 50	   

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1.60	13	:	:	18		:	:	:	:	:	•	:	, . 35	:
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.86	4	98:	÷.	.07	- 67 7!	?!	•	62.	:	:	.07	.50		:
	<b>%</b>	:	19		.57	7.6	:	1.14	:	:	:		71	•
	55.	:: S::		:	_ ::	<u></u>	:	.25	:		:	J.č.	5.	=======================================
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1.14	5.j	9†.	97.	:	89	9†.		<u>.</u>	:	:	:	.es	.46	:
62.	9†.	e;	÷:	.15	52.	.16	.0	70.	.05	.05	70.	7	02.	.02
Cancer, etc., of the Evenial Organs	{ Breast Street }	Skin	Cancer, etc., of Other Organs and Organs not specified	Other Tumors (tumors) of the female genital organs excepted)	Rheumatism, Acute     Articular	{ Rheumatism, Chronic, } and Gout	Scorbutus	Diabetes	Goitre, Exopthalmic	Addison's Disease	Leukaemia	Anamia	Alcoholism, Acute and { { Chronic	Saturnism
5.5	etc., of	21 Skin	30 { Cancer, etc., of Other } Organs and Organs not } specified	Other Tumors (tumors) of the female genital organs excepted)	:	14 { Rheumatism, Chronic, } and Gout	1 Scorbutus	50 Diabetes	g Goitre, Exopthalmic	2 Addison's Disease	2 Leukæmia	37 Anæmia	62 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	2 Saturnism
-	Scancer, etc., of Breast	Skin	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~	Rheumatism,		1 Scorbutus	4 50 Diabetes	2 Goitre, Exopthalmic	Addison's Disease	2 Leukæmia	3 37 Anamia		2  Saturnism
5 52	1 41 { Cancer, etc., of Breast	2 21 { Cancer, etc., of Skin	08 71	13	Rheumatism,	71	Scorbutus		2 Goitre, Exopthalmie	2 Addison's Disease	2 Leukaemia	21	- 7 - 62	
5.5	Scancer, etc., of Breast	2 21 { Caneer, etc., of Skin	08	~~	Rheumatism,	7	1 Seorbutus		1 2 Goitre, Exopthalmic	1 2 Addison's Disease	1 2 Leukæmia	::	62	
5 52	1 41 { Cancer, etc., of Breast	2 21 { Cancer, etc., of Skin	08 71	13	1 24 (Rheumatism,	71	1 Scorbutus	7	1 2 Goitre, Exopthalmic	1 1 2 Addison's Disease	1 2 Leukæmia	21	- 7 - 62	
20 3 5 52	18   41   Cancer, etc., of Breast	7 2 21 Skin of	08 71	13	1 24 (Rheumatism,	71	1 Scorbutus	21 1	1 2 Goitre, Exopthalmic	1 1 2 Addison's Disease	1 2 Leukaemia	21	42 1 2 62	1 1
20 3 5 52	6 3 2 18 1 41 { Cancer, etc., of Breast	a 7 2 21 Skin of	21	13	1   11   1   24   { Rheumatism, Articular	÷	1 Scorbutus	T	1 2 Goitre, Exopthalmie	1 1 2 Addison's Disease	1 1 2 Leukæmia	21	42 1 2 62	
20 20 52	3 2 18   41 { Cancer, etc., of Breast	3 7 2 21 { Caneer, etc., of Skin	2	13	2   1   11   1   24   Rheumatism,	51	1 Seorbutus	T	1 1 2 Goitre, Exopthalmie	1 1 2 Addison's Disease	1 2 Leukaemia	2	2 4 4 6 5 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6	1 2 Saturnism
20 20 52	6 3 2 18 1 41 { Cancer, etc., of Breast	5 8 7 2 21 Skin of	6	81 11 12 12 13 14 15 15 16 16 17 17 17 17 17 17 17 17 17 17 17 17 17	4 2 1 11 1 24 (Rheumatism,	50 51 51 51	1 Seorbutus	11 4 2 21 1 4	1 1 2 Goitre, Exopthalmic	1 1 2 Addison's Disease	112 Leukæmia	2	2	
12 20 52	4 6 3 2 18 1 41 { Cancer, etc., of Breast	1 5 8 7 2 21 Skin of	6	x	4 2 1 11 1 24 (Rheumatism,	50 51 51 51	1 1 Scorbutus	2 11 4 2 21 1 4	1 2 Goitre, Exopthalmie	1 1 2 Addison's Disease	1 2 Leukaemia	2	25 P P P P P P P P P P P P P P P P P P P	

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		Bristol County.			.67	£6:	.34	:	5.72	:	.34
	ON.	Kent County.		-	2.40	-85	:	:	5.23	1.13	
	PERCENTAGE OF DEATHS IN EACH DIVISION	Xewport County Towns,			2.14	i	.53		8.56	1.07	1.07
	БАСН	Xemport City.			4.72	.24	:	.71	7.07	76.	:
	IIS IN	Providence County Towns.			2.66	.65	.07	98.	4.96	:	.93
	DEAT	Central Falls,			3.13	:	:	:	5.11	.85	: 1/4
11	GE OF	Pawtucket.			2.65	.63	.13	.25	5.81	.13	:
	TENTA	Ргоуіденсе Сіґу.			1.47	.41	80.	.19	4.89	80.	65
	PERC	Woonsocket.			3.60	.18	:		4.14	:	
		Washington County.			1.14	:	i	94.	8.45	.23	.23
	tate.	Percentage in Whole S			2.16	98.	80.	.23	5.36	.25	. 35
		CAUSES OF DEATH.	11.	DISEASES OF THE NERVOUS System and Organs of Special Sense.	Meningitis, Simple	{ Meningitis, Epidemic, }	Locomotor Ataxia,   Progressive	Spinal Cord	{ Cerebral Congestion } and Hemorrhage	Cerebral Softening	Paralysis without cause   assigned
- (		Whole State.			191	94	1-	20	473	22	31
	NO	Washington County.			,:_	:	:	G1	95		-
	DIVISION	Moonsocket.		4	50	_	:	:	65	:	:
		Providence Chy.			J.C.	15	ಾ	1-	180	20	15
1	EAC! TE.	Pawineket.			22	10	-	्रा	97	-	:
	IN EAC STATE.	Central Falls.			11	:	:	:	18	0.0	:
1	DEATHS OF THE	Providence County			20	6		٠.0	69	:	13
	DE.	Newport Clty.			20	1	:	ಣ	30	71	<u>:</u>
	MBER OF DEATHS IN EACH OF THE STATE.	Newport County Towns.			=#			7	16	ु	⊕1 ————————————————————————————————————
	MBE	Kent County.	_		1.	ି ।		<u>:</u>	60	00	रा
	MBE	Kent County.			1.			:	: :		: : 60

Bristol County.

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:	:	55.		:	:	:	:	:	:			:	1.14	8.43	.91	:
.18	.61	.26	64.	.03	.03	.01	10.	.01	80.			60.	1.24	5.80	53.	. I.ō
	_^_										-					
General Paralysis	Other Forms of Mental Alienation	Epilepsy	Convulsions of Children.	Tetanus	Chorea	Neuralgia	\ Other Affections of the \ \ Nervous System	Diseases of the Eye and Appendages	Diseases of the Ear	III.	DISEASES OF THE CIRCULA- TORY APPARATUS.	Pericarditis	Endocarditis, Acute	Organic Disease of the   Heart	Angina Pectoris,	Affections of the Arteries.
10 General Paralysis	54   Other Forms of Mental   Alienation	23 Epilepsy	43 Convulsions of Children	Tetanus	2 Chorea	1 Neuralgia	Other Affections of the   Nervous System		7 Diseases of the Ear	III.	DISEASES OF THE CIRCULA- TORY APPARATUS.	s Pericarditis	109 Endocarditis, Acute	512 Organic Disease of the Heart	33 Angina Pectoris	13 Affections of the Arteries.
10 General Paralysis	Adjust Forms of Mental	1 23 Epilepsy	3 43 Convulsions of Children.	Tetanus	2 Chorea	1 Neuralgia		Diseases of the and Appendages		TII.	DISEASES OF THE CIRCULA- TORY APPARATUS.	S Pericarditis	5 109 Endocarditis, Acute	37 512 Crganic Disease of the Heart	4 33 Angina Pectoris	13 Affections of the Arteries
1c General Paralysis	$\cdots \cdots $ Other Forms of Mental $A$ Mienation $\cdots \cdots$	1 1 25 Epilepsy		z Tetanus	2 Chorea	1 Neuralgia	1 Other Affections of the Nervous System		1 7 Diseases of the Ear	ï	DISEASES OF THE CIRCULA- TORY APPARATUS.	1 S Pericarditis		29 37 512 Organic Disease of the Heart		13 Affections of the Arteries.
1   10 General Paralysis	$[5] \cdots \cdots [54] $ { Other Forms of Mental Alienation	5 1 1 22 Epilepsy	62	Tetanus	2 2 Chorea	1 Neuralgia		Diseases of the and Appendages		ill ill	DISEASES OF THE CIRCULA- TORY APPARATUS.	5 1 8 Pericarditis	13	65	7	7   13 Affections of the Arteries.
1     10 General Paralysis	7.5 	1 1	62 - TI	: Tetanus	::	1 Neuralgia		Diseases of the and Appendages		H.	DISEASES OF THE CHECULA- TORY APPARATUS.	:	13	12	71	7     13   Affections of the Arteries.
$\dots   \dots   1   \dots \dots   1  $ General Paralysis		5 1 1	18 4.	Tetanus	::	1 1 Neuralgia		Diseases of the and Appendages		TII.	DISEASES OF THE CIRCULA- TORY APPARATUS.	1	::	187 29 37	न १। 1-	7     13   Affections of the Arteries.
15   1     1   General Paralysis	7.5 	5 1 1	8 4 8 8	1 Tetanus	::	1 1 Neuralgia		Diseases of the and Appendages		III.	DISEASES OF THE CHECULA- Tory Apparatus.		::	54 187 29 37	न १। 1-	8     7   13 Affections of the Arteries.
	100 H20 H20 H20 H20 H20 H20 H20 H20 H20 H	5 1 1	21 21 22 22	: : : : : : : : : : : : : : : : : : : :	::	1 1 Neuralgia		Diseases of the and Appendages		TII.	DISEASES OF THE CIRCULA- TORY APPARATUS.		2 (6)	22 54 187 29 37	71 21 1-	; ; ; ;
15	- 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10	11 5 1 1	51 54 81 82 83	: : : : : : : : : : : : : : : : : : : :	::	1 1 Neuralgia		Diseases of the and Appendages		TII.	DISEASES OF THE CIRCULA- TORY APPARATUS.	1 1 5 1	× × ·- · · · · · · · · · · · · · · ·	93 22 54 187 29 37	12 21 21	:
15	5	11 5 1 1	65 64 64 65 65	: : : : : : : : : : : : : : : : : : : :	::	1 1 Neuralgia		Diseases of the and Appendages		TII.	DISEASES OF THE CHECTLA-TORY APPARATUS.	1 1 5 1	× × ·- · · · · · · · · · · · · · · ·	26 93 22 54 187 29 37	1 c c c c c c c c c c c c c c c c c c c	:

Table IX.—CLASSIFICATION AND PERCENTAGE, 1900.—Continued.

	Bristol County.	:	:	£6:		.34	:	20.6	:	8.42
.0N.	Kent County.	7	:	- 85.		76.	:	3.39	.85	8.02 12.71
PERCENTAGE OF DEATHS IN EACH DIVISION.	Newport County Towns.	:	:	:		:	:	2.67	1.07	
EACH	Newport City.	14.	:	42.		:	:	3.07	74.	6.62
HS IN	Providence County Towns.	.29	:	.07		.14	:	1.07	62.	9.85 11.65 11.50
DEAT	Central Falls.		:	:		. 28	:	7.95	1.14	11.65
GE OF	Рамінскеі.	.25	:	.1.		.25	:	3.03	.38	9.85
ENTA	Providence City.	.4.	80.	.0s		.46	.03	3.10	.35	7.91 12.26
PERC	Woonsocket.	:	:	.36		¥6.	:	2.16	.72	7.91
	Washington County.	97.	:	:		22.	:	1.59	.46	7.74
ste.	Percentage in Whole St	.30	.03	.12		.85	.01	2.81	.53	10.95
	CAUSES OF DEATH.	Embolism and Thrombosis	Affections of the Veins	11 Hemorrhages	IV. DISEASES OF THE RESPIRATORY SYSTEM.	31 Affections of the Larynx	{ Affections of the Thy- } roid Body	248 Bronchitis, Acute	Bronchitis, Chronic	34   966   Pneumonia
1	Whole State.	26	ಣ				-	1 248	2 47	966
LON	Washington County.	G1		:		-1				
DIVISION	Woonsocket.		: ::	つ <b>1</b>		٠٠٠ - ٢٠٠	:	112	<del>*</del>	#
	Providence City.	9 15				2 17		4 114	3 13	78 451
IN EAC STATE.	Pawtueket.		_:			-	_:-	-8- -8-	7	-35
NI S	Central Palla.	:	:	:		e1	-:-	5 28		0 +
NUMBER OF DEATHS IN EACH OF THE STATE.	Providence County Towns.	91	-:				- :-	13 15	2 11	28 160
P DE	Newbort City.		- :				: -	٠ <u>٠</u>	ତଃ	15 2
R 01	Newport County Towns.	:	:	: ?!		:	:	76	- 9	90 1
MBE	Kent County.	-	:				:	्हें - क	:	25 9
N.	Bristol County.	:	:				:		:	31

10	00.]			CL	ASSI	FIC.	ATION	AND	PER	CEN	TAGE.				55
:	:	:					:	:	:	:	1.35	11.11	:	2.36	99:
.58	:	:	:							1.	10	8.27 10.16 10.87 11.11	.14	1.69	6.
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17.	F-		:					:	:	14.	1-	20.00	17.	7+.	
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.13	88.	.13	:					:	:	35	ss.		:	1.26	.68 .54 .54 .76
.30	.14	.14	9.				:	so.	:0:	.6i	64.	6.50	=	.03	ŢĠ.
.18	†g.	:	.18				:	:	:	:	.72	7.06 22.12	<u>s</u>	51 51	4
77.	::	.0s	:					:		:	1.89		:	1.18 1.14	.68
₹.	?}	.0s	50.				.02	9.	.01	.17	.67	8.76	21	1.18	16:
Plenrisy	Asthma	Pulmonary Emphysema	(Other Diseases of the Respiratory System) (Phthisis excepted))	2	DISEASES OF THE DIGEST-	IVE APPARATUS.	{ Affections of the Mouth } and its adnexa}	Affections of the Pharynx.	\ \text{Affections of the Gso-} \ \ \text{phagus}	Uleer of the Stomach	Stomach (Stomach (Sto	{ Diarrhea and Enteritis } { (under 2 years) }	{ Unarrhea and Enteritis } { (Chronic)	Diarrhora and Enteritis     (over 2 years)	Hernia and Intestinal   Obstruction
21 Plenrisy.	20 Asthma	7 Pulmonary Emphysema	2 Respiratory System (Phthisis excepted)	2	DISEASES OF THE DIGEST-	IVE APPARATUS.	2 { Affections of the Mouth } and its adnexa	4 Affections of the Pharynx.	Affections of the (Eso- } { phagus}	15 Uleer of the Stomach	59 { Other Affections of the } { Stomaclf	50	11 { Diarrhæa and Enteritis } { (Chronic)		50   Hernia and Intestinal   Obstruction
					DISEASES OF THE DIGEST-	IVE APPARATUS.				15 Uleer of the Stomach	8 59 Stomach			5 104   Diarrhora and Enteritis ( tover 2 years)	3 50   Hernia and Intestinal   Obstruction
1 21 Plenrisy	3 20 Asthma	7 Pulmonary Emphysema	71	2	DISEASES OF THE DIGEST-	IVE APPARATUS.	\$1	4 Affections of the Pharynx.	_		59	51.	11		3 50 { Hernia and Intestinal } Obstruction
			71	ii	DISEASES OF THE DIGEST-	IVE APPARATUS.	21		:	:	8 59	125 31 773	11	5 104	::
	33	:	71	i i	DISEASES OF THE DIGEST-	IVE APPARATUS.	21	:	:	:	4 8 59	51.	11	12 5 104	02 2
	00 100	:	71	2	DISEASES OF THE DIGEST-	IVE APPARATUS.	21	:	:	6	18 4 8 59	239 128 31 773	11	38 12 5 104	50 :: 20
	00 100	:	71	2	DISEASES OF THE DIGEST-	IVE APPARATUS.	21	:	:	1, 9,	18 4 8 59	71 239 128 31 773	11	10 38 12 5 104	50 :: 20
1 11 11	00 100	:	71	i i	DISEASES OF THE DIGEST-	IVE APPARATUS,	21	:	:	1, 9,	18 4 8 59	50 71 239 128 31 773	4	5 10 38 12 5 104	1 6 20 3 3 50
3 1 11 11 1	1-	:	71	2	DISEASES OF THE DIGEST-	IVE APPARATUS,	21	:	:	1 1 9	11. 1 7 18 4 8 59	95 50 71 239 123 31 773	T :: :: :: :: :: :: :: :: :: :: :: :: ::	12 5 10 38 12 5 104	4 1 6 20 3 3 50
3 1 11 11 1	1-	:	71	2	DISEASES OF THE DIGEST.	IVE APPARATUS,	21	:	:	2 1 1 9	11. 1 7 18 4 8 59	35 95 50 71 239 128 31 773	21 22 33 34 34 35 35 36 36 37 37 37 37 37 37 37 37 37 37 37 37 37	12 5 10 38 12 5 104	2 4 1 6 20 3 3 50

Table IX.—CLASSIFICATION AND PERCENTAGE, 1900.—Continued.

	!	Bristol County.	:	.01	:	:	:	:	₽6:	3.70	£6:
	ON.	Kent County.	:	:	:	.57		38.	řē.	3.11	.28
	DIVIS	Newport County Towns.	5.6	:	:	:	i	:	:	2.14	:
	EACH DIVISION.	Newport City.		:	:	1.42	:	.24	.71	1.65	.24
1		Providence City Towns.	-0.	:	.14	.22	.07	.65	.14	1.79	.22
-	PERCENTAGE OF DEATHS IN	Central Falls,	:	.01	:	. 28	:	.57	:	4.26	:
	R OF	Рам гискет.	:	:	:	.51	:	.51	.25	3.91	
	ENTAC	Providence City.	-80.	:	.19	+6.	.03	76.	.16	2.64	.65
	PERC	Woonsocket.	:	:	- <del>.</del> :	98.	:	.18	06.	2.70	:
		Washington County.		:	:	1.14	.23	. 23	:	2.51	.68
,	tafe.	Percentage in Whole S	90.	9.	.10	.51	.03	īē.	.26	2.70	.39
		CAUSES OF DTATIL.	Other Affections of the Intestines	Diseases of the Anns (and Fecal Fistulas)	Ieterus, Grave	Cirrhosis of the Liver	Biliary Calculi	Other Affections of the \ \ Liver\	Peritonitis, Simple	Other Affections of the Digestive Apparatus	Appendicitis & Phleg- and mon of the Hiac Fossa.
		Whole State.	- 73	ହା	G, .	17	င်င	÷.	- E	861	34
1/1-	N.	Washington County.	:	:	:	10	-		:	=	30
	DIVISION	Woonsocket,	:	:	:	.21	:	-	٠٠.	15	:
	lu l	Providence City.	99	:	1-	20	-	10	9	16	ें दें।
	SACII SE.	Pawtucket.	:	:	:	7	:	7	GI	31	:
	IN EASTATE	Central Palls.	:		:	1	:	<b>ः</b>	:	15	:
	THE	Providence County Towns,	-	:	ुरा	ಣ		o.	24	25	್ಯಾ
	NUMBER OF DEATHS IN EACH OF THE STATE.	Newport Chy.	:	:	:	9	-:		30	1-	-
	30.	Newport County Towns.	-	:	:	:	:	:	:	7	:
	BER	Kent County.	:		:	+	:	ဗ	7	ह	िरा
	NUN	Bristol County.	:	-1	:	:	;	:	-	11	

		#	4.71	±6.	.67	:	:	.67	:	:	:	:			.67	:
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		00.	7.19	:	:	02.	10.	.07	.07	10.	:	:			10.	:
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		1.93	4.46	.03	.0·	.0s	.05	.14	.30	.16	11.	08.			31	
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		16.	6.38	.46		94.	:	. 23	89.	ê <u>j</u>		:			:	:
		1.55	4.42	.10	<del>+</del> 0.	.1.s		Π.	5.		90.	.12			44.	30.
	TO-	:	: (	~ u	~~~	:	~~	:	:	~~	~~	~~~		ಷ	:	)I.
VI.	DISEASES OF THE GENITO- URINARY APPARATUS AND ITS ADNEXA.	Nephritis, Acute	Bright's Disease	Kidneys and their Ad-	Calculi of the Urinary Tract.	Diseases of the Bladder	Diseases of the Ureth-	Diseases of the Prostate	Tumor, Uterine	Other Diseases of the Uterus	System of the Overy	Other Diseases of the Female Genital Organs	VIII.	THE PUERPERAL STATE.	Accidents of Pregnancy.	Other Accidents of Labor
VI.	DISEASES OF THE GENT URINARY APPARATUS / ITS ADNEXA.	117 Nephritis, Acute	300 Bright's Disease	9 Kidneys and their AC	4 Calculi of the Urinar, Tract.	16 Diseases of the Bladder.	B   Diseases of the Ureth   ra, etc	10 Diseases of the Prostate	18 Tumor, Uterine	Other Diseases of the	5 Cysts and Other Tum ors of the Ovary	11 { Other Diseases of the { Female Genital Organs	VIII.	THE PUBRICHAL STAT	21 Accidents of Pregnancy	2 Other Accidents of Labor.
VI.	DISEASES OF THE GEN URINARY APPARATUS / ITS ADNEXA.	4 117 Nephritis, Acute	28 390 Bright's Disease	~~		2 16 Diseases of the Bladder		1 10 Diseases of the Prostate	3 18 Tumor, Uterine				VIII.	THE PUERPERAL STAT	21 Accidents of Pregnancy.	2 Other Accidents of Labo
	DISEASES OF THE GEN URINARY APPARATUS / ITS ADNEXA.	117	16 28 390 Bright's Disease	<u></u>	7			1					VII.	THE PUERPERAL STAT	1 21 Accidents of Pregnancy.	2 Other Accidents of Labo
VI.	DISEASES OF THE GENT URINARY APPARATUS I	4 117	28 890 B	G 01	<del>"</del> "	31	65		22 				VIII.	THE PUERPERAL STAT	8 1 21 Accidents of Pregnancy	1 2 Other Accidents of Labo
VI.	DISEASES OF THE GEN URINARY APPARATUS I ITS ADNEXA.	111 + +	16 28 390 B	6 6	<del></del>	31	•••		55	1 1 10	:	= ::	VII.	THE PUBREBRAL STAT	1 21	$  1   \dots   2  $ Other Accidents of Laborary
	DISEASES OF THE GEN URINARY APPARATUS I	711 4 4 117	11 26 164 16 28 890 B	6 6	<del></del>	31	•••		55	1 1 10	:	= ::	VII.	THE PUERPERAL STAT	8 1 21	$\ldots  \ldots $ 1 $ \ldots $ 2 Other Accidents of Labor
VI.	DISEASES OF THE GEN URINARY APPARATUS I ITS ADNEXA.	113 71 4 4 117	11 26 164 16 28 890 B	6 6	<del></del>	31	•••		55	1 1 10	:	= ::	VII.	THE PUBRICALL STAT	%	2 Other Accidents of Labor
VI.	DISEASES OF THE GEN URINARY APPARATUS / ITS ADNEXA.	711 t t 117 Et 7	26 164 16 28 390 B	6 6	<del></del>	23	•••		55	1 1 10	:	= ::	VII.	THE PUBRICAL STAT	%	1         2   Other Accidents of Laborated
VI.	DISEASES OF THE GEN URINARY APPARATUS I	7117 4 4 111	100 11 26 164 16 28 390 B	6 6	<del></del>	23	•••		1 11 3	1 1 10	:	= ::	VII.	THE PUBREBRAL STAT	%	$\ldots$ 1 $ \ldots $ $ \ldots $ 1 $ \ldots $ 2 Other Accidents of Laboratory
VI.	DISEASES OF THE GEN URINARY APPARATUS / ITS ADNEXA.	7117 4 4 111	9 100 11 26 164 16 28 390 B	6 6	<del></del>	23	•••		1 11 3	1 1 10	:	= ::	VII.	THE PUERPERAL STAT	%	$\ldots \qquad 1   \ldots   \ldots   \ldots   \qquad 1   \ldots \qquad 2   $ Other Accidents of Lab

Table IX.—CLASSIFICATION AND PERCENTAGE, 1900.—Continued.

	Bristol County.	:	:	:	:			.94	:	:
ON.	Kent County.	.42	.57	:	.14			.14	:	.14
PERCENTAGE OF DEATHS IN EACH DIVISION.	Newport County Towns.	3.6	:		55.			1.07	:	
ЕАСП	Newport City.	.24	:	:	:	9777 d'As eus Pharmada euses Milles bai		:	:	:
NI SI	Providence County Towns.	.43	. 22		:			.07	:	
DEATI	Central Falls.	:	:	:	:			:	-28.	-:
E OF	Раміискеі,	92.	.13	•	:			:	:	.13
ENTAC	Providence City.	.65	ç; ;;	.03	.03			£6.	.08	80.
PERC	Woonsocket,	-06.	.36	:	:			.18	:	:
	Washington County.	-89.	.23	:	:			.23	:	
tate.	Percentage in Whole S	- 56	.26	.01	.03			.18	-04	90.
	CAUSES OF DEATH.	Septicamia, Puerperal	Albuminuria and Puer- peral Eclampsia	Phlegmasia, Alba Do- lens, Puerperal	Other Puerperal Accidents	VIII.	DISEASES OF THE SKIN AND CELLULAR TISSUE.	16 Gangrene	Furuncle (Carbuncle)	Abscess, Warm
	Whole State,	-67	23		ಬ			16	4	20
NC	Washington County.	- 00		:	:			-	:	:
DIVISION	Моопвоскес.	- 13	oı_	:	:			1	:	
	Providence City.	7,	27		-			G	ෙ	_ co
EAC TE.	Ъямгискег,	_ 0	1	:	:			:	:	-
1N EA STATE	Central Falls,	:	:	:	:			:		:
DEATHS OF THE	Providence County Towns,	-9	6.5	:	:			1	:	
DE. OF	Newport ('lty,	-	:	:	:			:	:	:
NUMBER OF DEATHS IN EACH OF THE STATE.	Демрогt Соппty Тоwns,	-	:	:	1			G1	:	:
IBEI	Kent County.	90	7	:				1	:	Н
NU	Bristol County.	:	:		:	de pro-			;	:

		.67	:		0.0			:	:	:				0.5
			:		1.01			:	:	:				70
		1.	<del>-</del>		çi X			4.10	7					08.4
				-		-	-	1-						5
		:	:					1.27		:				33
		:						25 1 <u>-</u> 30	7	:		-		121
		:						25		:				± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ±
		.07	÷		13			2.01	<u>ei</u>	:				28 3.52 6.15 8.56 4.80 5.05
-		76.			\$ <u>\$</u>				15.					- X
		1.2			w.			2.56	8.40	:				
		55	:		15.			4.16	:	:				85
			:					7		•		_		
		:0:	:		16			4.18	ર્ <u>ફ</u> ો	:0:				3.04 5.24 1.62 1.96 3.03
		:	:		.36			3.78	:	:				.62
		:	<u>:</u>											-
		:			:			51 82 83	:	:				70 61
		80.	£0:		9.5			8.5.8 Siz.	.18	0.				3.04
	3													
	DISEASES OF THE ORGANS OF LOCOMOTION.	1 2 1 7 Affections of the Bones	1 2 { Arthritis and Other }	×	MALFORMATIONS 47 Malformations	XI.	EARLY INFANCY.	s 16 28 9 83 154 21 10 316 { Congenital Debility, } { Icterus and Sclerma }	1 4 2 8 16 { Other Diseases of Early }	1 Lack of Care	11.	WIT:	OLD AGE.	16   26   49   1   24   71   9   23   268   Senile Debility
IX.	DISEASES OF THE ORGANS OF LOCOMOTION.	51	۶۱ :	X	9 3 4 20 2 47 Mali	XI.	EARLY INFANCY.	16 28 9 33 154 21 10 316 { Congenital Debility, } { Icterus and Sclerma }	21 22 23	:		WIT.	OLD AGE.	26   49   1   24   71   9   23   268   Semile Debility

TABLE IX.—CLASSIFICATION AND PERCENTAGE, 1900.—Concluded.

1'		Bristol County.			:	:	£6.	:	:	:	:
1	ON.	Kent County.			:		.14	:	.14	1	
	DIVISI	Zewport County Towns.			.;: :::3		.53	.53	:	:	
	ВАСН	Newport City.			.24	:	:	12.	.47	:	:
1	IS IN	Providence County Towns.			.14	:	.29	.14	.14	.07	:
1	DEAT	Central Falls.					 :	.28	:	76.	
H	E OF	Раміискеі.			88.	:	.38	.25	.13	.13	:
1	PERCENTAGE OF DEATHS IN EACH DIVISION.	Providence City.			.14	.03	80.	.05	80.	1.	.03
	PERC	Woonsocket.			:		:	:	:	:	:
		Washington County.			. 23	:	:	:	.23	:	<u>:</u>
	,ete,	Percentage in Whole S			.15	.01	.15	.10	.11	60.	.01
		CAUSES OF DEATH.	XIII.	AFFECTIONS PRODUCED BY EXTERNAL CAUSES.	13 Suicide by Poison	Suicide by Asphyxia	13 Suicide by Hanging	9 Suicide by Submersion	10 Suicide by Firearms	Suicide by Cutting In- struments	Suicide by Jumping { from High Places}
		Whole State.			13	H	55	6	10	œ	
1	NO	Washington County.		-	1	:	:	:	П	:	:
	EACH DIVISION (TE.	Woonsocket.			:	:	:	:	:	:	:
	<u> </u>	Providence City.			10	-	ଦେ	21	ော	7	-
	EACI TE.	Pawineket.			ಾ	:	ಾ	ा	-	1	:
1	STA	Central Falls.			•	:	:	1	:	का	:
	ATHE	Providence County Towns.			G1	:	7	ଦୀ	Ç.	H	:
1	DEA OF	Newport City.			Т	:	:	П	ଟା	:	:
1 3	NUMBER OF DEATHS OF THE	Newport County Towns.			-	:	1		:	:	:
	IBEI	Kent County.			:	:	-	:	-	:	:
1	NC	Bristol County,			:	:	1	:	:	:	:

2000	٠.)									
1.35	.67	.67	46.	1.35	1.35	:	26:			95 H
2.10 2.05 1.80 2.69 1.64 1.70 1.65 .47 1.60 2.26 1.35	즉:	.14	:	_66·	S.	:	.14			.53
1.60	:	:	:	.85 1.00 .71 1.07	.29 1.18 1.07	:				žė.
7	:	:	:	12:	1.18	:				현
1.65	.36	.07	:	1.00	65.	3	.14			.50
1.70	:	:	:	.85	82.	16.	:			:
1.64		:	:	25.	92.	.13	:			:1:
2.69	.18 .46	.24	:	7	-09.	.16	.16			ę. 30
1.80	.18	:	:	.73 1.82 1.08 .41	.45	.36	:			61. 65. 15.
2.05	:	:	.23	1.82	- 245	91.				16.
2.10	.37	.15	.02	.73	09.	.16	11.			ss.
$\begin{vmatrix} 99 & 10 & 9 \end{vmatrix}$   85   Cother Accidental Trau-   matism	23 Burns and Scalds	13 Insolation	2 Electrical Disturbances	64 Accidental Submersion	$\left. \begin{array}{l} \left\{ \text{Absorption of Deleteri.} \right\} \\ \left\{ \text{ous Gases} \right\} \end{array} \right.$	14 Other Acute Poisonings	10 Other External Violence	XIV.	ILL-DEFINED DISEASES.	33 Unspecified Causes of Death
185	65	13	C)	64	53	14	10			 
-G	:	:	-	S	C1	:	:			77
10		-:-		9	-	_01	:			
-66	17 1	- <sub>6</sub> -	:	-53	81	9	- 9			1:5
20	13	:	:	Ø	9	-	:			
-9	-	:		0.5	_	©1 =	-:-			:
55 G1	- ia	1	:	14	7	23	्टा -			1-
_33 _	:	:		ಽಽ	ia.	:	:			1
				- 21	21					
65	:	:		0.1	G1					1
16	65	1	:	1-	9	:	1			01

## Table X.—Causes of Deaths Registered in Rhode Island,

Class.	CAUSES OF DEATH.*	1853	1854.	1855.	1856.	1857.	1858.	185
Ì	ALL CAUSES	1,291	1,806	1,970	2,225	2,510	2,793	2,44
	SPECIFIED CAUSES	1,176	1,665	1,782	1,919	2,223	2,483	2,1
	[CLASSES.]							
I.	ZYMOTIC DISEASES	504	604	682	820	924	1,124	9
I.	CONSTITUTIONAL DISEASES	67	58	68	88	106	112	
Ι.,	LOCAL DISEASES	334	580	476	440	549	564	ŧ
٧.	DEVELOPMENTAL DISEASES	208	357	482	510	561	596	5
v.	VIOLENT DEATHS	63	56	74	61	82	87	
	[GROUPS.]							
I.	1. COMMUNICABLE DISEASES	489	588	668	804	891	1,088	8
	2. Dietic Diseases	14	11	8	15	29	26	
	3. Parasitic Diseases	1	5	6	1	4	10	
I.	1. Diathetic Diseases	67	58	68	88	106	112	
	DISEASES OF-							
I.	1. Nervous System	101	90	126	117	158	165	1
	2. Organs of Circulation	29	40	65	43	67	67	
	3. Respiratory Organs	46		72	93	93	101	
	4. Digestive Organs	142		186	158	188		1
1	5. URINARY ORGANS	6		13	10	26	17	
- 1	6. Organs of Generation	5	ł	3	5	2	7	• •
	7. ORGANS OF LOCOMOTION	3	ł	2 9	7	6	6	
	8. INTEGUMENTARY SYSTEM	2	3		7	9	3	
	Developmental Diseases of-		1					
v.	1. Children	122	255	342	362	376	403	
٧.	2. Women	10		9	14	13	24	
	3. Old People	58	67	84	76	119	114	1
	4. Diseases of Nutrition	18	28	47	58	53	55	
v.	1. Accident or Negligence	57	58	57	56	73	78	
٧.	2. Battle							
	3. Homicide	3		9	1	1	1	
	4. Suicide	8	3	8	4	8	13	
	_							
	Causes Ill-defined	15	20	19	14	30	1:1	
					1			

<sup>\*</sup> Still-born included in this table.

# For each of the Forty-eight Years, 1853 to 1900.

1860-	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
2.853	3.073	2.714	3,318	3,498	3,582	3,142	3,052	3,124	3,602	3,472	3,567	4.449	4,631	4,506	4,563	4.340
2,628	2,853	2,505	3,081	3,255	3,335	2,938	2,827	2,788	3,251	3,276	3.275	3,986	4,344	4,297	4,300	4.095
1,073			1.278			1,172					1,265					
131	126	122	141	123	139	132	123	130	144	167	151	187	198	155	193	199
632	768	660	925	855	835	804	809	666	753	767	844				1,104	
657	653	584	612	684	715	698	710	784	819	935	890		2.211		1,175	1.020
135	108	107	125	116	103	132	122	115	122	139	125	146	156	150	171	153
1,038	1,156	1,002	1,235	1,437	1,525	1,160	1,043	1,076	1,390	1,242	1,235	1,353	1,670	1,662	1,632	1,581
29	34	24	36	31	10	7	11	11	20	20	19	23	14	25	18	27
5	8	6	7	9	8	5	9	6	3	6	11	1	5	3	7	5
						433										
131	126	122	141	123	139	132	123	130	144	167	151	187	198	155	193	199
170	212	170	203	217	202	207	245	208	238	249	277	299	351	312	336	346
73	108	113	99	124	99	117	115	116	128	120	146	190	193	217	191	168
110	119	104	140	140	127	99	92	74	90	106	123	150	156	164	191	191
233	261 27	230	427	326 28	364 26	333 29	285	194	232	217	250	337	267	283	268	284
29	9	25 1	35 3	1	4	1	43	46 2	46	48	57	77 5	85 3	85 3	85 1	69
5	15	8	9	7	5	5	6	12	11	15	5	11	18	15	16	27
11	17	9	9	12	8	13	22	14	8	11	16	12	17	24	16	23
476	440	371	390	426	498	454	455	515	523	647	566	857	844	853	834	671
13	19	23	21	23	18	24	26	22	27	28	34	36	29	44	35	30
116	122	143	161	193	152	178	188	206	217	204	232	233	254	223	216	241
52	62	47	40	42	47	42	41	41	52	56	58	69	84	79	90	78
119	93	91	104	106	90	119	102	97	105	107	106	126	145	128	142	131
		7	3	1	1	1			• • • •							
4	3	1	5			1	5		2	5		2	3	4	3	4
12	12	8	13	6	12	11	15	18	15	27	19	18	8	18	26	18
37	18	21	20	34	40	33	30	48	51	59	43	87	70	57	56	32
188	202	188	217	209	207	171	195	288	300	137	249	376	217	152	207	213

Table X.—Causes of Deaths Registered in Rhode Island,

Class.	CAUSES OF DEATH.*	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.
	ALL CAUSES	4,692	4,689	4,688	5,021	5,280	5,327	5,535	5,413
	SPECIFIED CAUSES	4,444	4,430	4,386	4,742	4,878	5,011	5,327	5,352
	[CLASSES.]								
I.	ZYMOTIC DISEASES	1 810	2 000	1 867	1 970	1 877	1 776	1 890	1 509
II.	CONSTITUTIONAL DISEASES	231	185	221				1	,
III.	LOCAL DISEASES								
IV.			i					1	
		1,015					1,254	1	
V.	VIOLENT DEATHS	162	159	127	157	182	215	185	221
	[GROUPS.]								
I.	1. Communicable Diseases	1,794					ļ	1,795	1
	2. Dietic Diseases	17	16	16		29	32	42	38
	3. Parasitic Diseases	8	6	2		2	2	2	2
II.	1. Diathetic Diseases	231	185	221	205	239	213	260	258
	Diseases of—								
111.	1. Nervous System	375	361	414	415	481	484	500	506
	2. Organs of Circulation	187	172	208		271	252		
	3. RESPIRATORY ORGANS	191	206						
	4. Digestive Organs	335 98	264	270 113		324 110			
	5. Urinary Organs	98	1	113	7	3	6		14
	7. Organs of Locomotion	15	10	20	15	11	25		32
	8. Integumentary System	12	20	17	7	23	17	19	27
	9. ORGANS OF SPECIAL SENSE-EYE AND EAR								
	DEVELOPMENTAL DISEASES OF-								
IV.	1. CHILDREN	684	648	591	706	752	843	824	912
	2. Women	29	26	36		38			39
	3. OLD PEOPLE	213		220		247	283		293
	4. Diseases of Nutrition	89	64	79	104	82	106	130	126
v.	1. Accident or Negligence	137	135	113	146	155	178	157	197
	2. Battle								
	3. Homicide	3		1	1	4	6	3	
	4. Suicibe	22	21	13	10	23	81	25	22
	CAUSES ILL-DEFINED	56	49	48	46	55	45	22	19
	Causes not stated	192	210	254	283	317	271	186	42
	Causes not stated	192	210	254	283	317	271	186	

<sup>\*</sup> Still-born included in this table.

## For each of the Forty-eight Years, 1853 to 1900.—Continued.

1885.	1886.	1887.	1888.	1889	1890	1891.	1892.	1893.	1891.	1895.	1896.	1897.	1898.	1899.	1900.	TOTAL A CENT FOR 45 1853-	AGE YEARS,
5.860	6 142	6 616	I REI	A SES	7 920	n 909	7 720	7 950	9 550	7 009	~ 000	7 599	7 316	2 8 12	0.102	209,696	100.00
5,514	6,052	0,562	6,815	0,500	7.142	6,823	1.017	7,703	7,495	1.819	7,803	1,185	1,014	7,802	9,141	200,548	95.64
1.924	2.121	2.394	2.335	2.025	2,427	2,201	2.464	2.548	2,425	2,563	2.427	2.292	2.039	2.417	3.088	73.571	35.09
206		264	307	312			305	325		300		304	315		396	8,796	4.19
						2,331											29.29
																61,406	
	1,443		1,699		,	1,734							1,668		1,934	49,098	23.41
201	213	221	216	243	271	274	332	288	288	330	336	316	355	332	401	7,677	3.66
1 277	2,084	0.01*	9 90 4	1.040	0 205	2,130	201.0	0 105	0 200	9 505	0.964	0 0 10	1 000	0 000	2.010	5'00 OO 1	34.34
47	35	2,347	40	74	2,365	2,130	2,405	≈,465 8€	2,300 58	35	2,881	2,248	1.983	42	3,019 69	72,004 1,395	.67
	2	1	1	2	1	2	03	1	1		40	49		46		1,555	.08
			·	~	,	~		1								112	.00
	000		0.00	04.0	200			000	204	200		204	0.15	214			
296	262	264	307	312	299	283	305	325	291	300	285	304	315	341	396	8,796	4.19
527	598	613	642	554	612	607	660	682	748	790	760	843	784	775	850	17,335	8.26
358	333	411	442	467	413	485	509	535	476	535	556	570	551	653	715	10,735	5,12
299	305	316	363	402	423	378	465	438	363	383	371	294	283	304	377	9,311	4.41
393	495	527	516	541	553	513	595	628	600	581	595	560	647	599	706	16,076	7.67
215	353	220	244	272	300	300	325	377	397	431	472	471	547	573	601	6,186	2.95
14	12	14	10	10	8	15	15	20	32	43	53	38	36	31	44	409	.20
34	26	23	15	18	25	20	17	14	19	23	22	18	12	18	15	652	.31
23	22	20	26	10	55	13	10	5	27	17	36	10	33	11	6	66	.32
								2	10	11	5	8	4	6	8	36	.03
	1.000	1 0 4 2	1.011	4 4 1 1		4 000	1 400		1 100	1 100			1 400		4 () ()		4.0.00
	1,000	1,053	1,217	1,161	1,325	1,309	1,436	1,467	1,497	1,490	1.598	1,457	1,408	1,474	1,605	34,851	16.62
28 267	276	278	290	227	198	28 185	256	183	187	252	293	253	211	243	268	1.801 9.125	.62 4.35
122	136	146	159	281	240	217	241	191	73	202	203	200	211	240	208	3,821	1.82
1~~	100	140	100	401	~40	~11	~91	101	10							04091	1.00
178	194	206	190	216	250	233	309	264	234	293	296	268	296	276	336	6,703	3.20
			}													14	.01
3	2	2	5	3	5	1	4	3	9	G	2	12	13	15	10	187	.06
20	17	16	21	21	19	40	19	21	-15	31	38	41	46	41	อ้อิ	523	.89
57	39	35	-16	49	45	35	31	31	5	31	46	20	20	23	23	1,680	.80
59	51	19	28	39	43	34	28	68	55	52	29	25	21	22	33	7,468	3.56

#### Table X.—Continued.

A								
Class.	CAUSES OF DEATH.	1853.	1854.	1855.	1856.	1857.	1858.	1859.
I.	GROUP 1.						!	
	1. Varicella				••••		• • • •	
	9 Mongles		15	3	2	6	75	3
	4. Scarlet Fever	108	46 11	71	208	147	234	71
	5. Nedsley 4. Scarlet Fever. 5. Small Pox * 6. Diphtheria 7. Quinsy †						6	20
	7. Quinsy t						• • • •	
	9. Carbuncle				··· i		1	····i
	10. Erysipelas	3 2	8 2	15 6	12 10	14 8	20	15 11
	7. Quinsy 7. 8. Tonsilitis. 9. Carbuncle. 10. Erysipelas. 11. Fever. Puerperal. 12. Septicæmia. 13. Glanders. 14. Hydrophobia. 15. Meligrant Postule.				10			
	13. Glanders				····i		• • • •	
•	15. Malignant Postule.	1		····i			i	6
	15. Malignant Postule. 16. Meningitis, Cerebro-Spinal. 17. Tetanus.			3	4	6	i	3
	18. Cholera 19. Fever, Malarlal							
	19. Fever, Malarlal			2	1 8	2	4	1
	19. Fever, Maariat 20. Fever, Remittent ‡ 21. Fever, Typhoid §. 22. Influenza	25	39	63	58	76	42	70
	22. Influenza	2	1	4		15	6	2
	24. Pertussis 25. Pneumonia	2	14	4	19	9	13	46
	25. Pneumonia	48	54	79	120	141	166	125
	97 Suphilis	1		1	2		3	5
	28. Hydrocephalus (Tubercular Meningitis)	33	40 5	58 8.	47	52 11	65 11	56 8
	29. Scrofula. 30. Tabes Mesenterica.					4	6	2
	31. Tubercular Enteritis 32. Tubercular Laryugitis. 33. Tubercular Peritonitis.							
	33. Tubercular Peritonitis							
	34. Tuberculosis, General. 35. Tuberculosis, Pulmonary.	243	349	315	305	400	426	436
	GROUP 2.							
	1. Alcoholism (Delirium Tremens, Intemperance)	14	10	7	13	25	21	22
	2. Inanition		1	1	1 1	4	5	····i
	o, raipaid and some y							1
	Group 3.							
	1. Thrush	1	4	5	1	3	9	3
	2. Worms		1	1		. 1	1	2
II.	Group 1.				٠			
	1. Gout							
	2. Dropsy	45	31	32	50	48	44 12	41
	4. Cancer	13	18	27	26	37	4.1	43
	5. Noma (Canker)	1 4	2	3	4	8	7	3
	7. Rheumatism	2	1	2	4	7	d	7
	Chr 1							
111.	Group 1.	00	141	0.0	19	25	42	20
	1. Cephalitls	28 22	19 25	26 33	39	42	43	51
	2. Apoplexy and Paralysis	12	6	20	9	21	.14	28 16
	4. Chorea	4	6	8		16	9	2 6
	. 5 Epllepsy	4 81	31	8 31	80	8 45	9 86	6 41
	6. Brain Diseases, etc. 7. Nerve Diseases					40		
	Group 2,							
	1. Pericarditis	····	2	1 1	1 1	2	····i	1
	3. Heart Diseases, etc	28	38	63	41	65	66	62
				1				

# Causes of Deaths Registered in Rhode Island.

1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
8 64 9 67 3	11 57 5 140	12 47 81 1	36 91 155	26 266 12 160 2	16 255 22 82 1	15 28 2 64	12 14 1 31	20 93 2 20	19 2×6 3 33 1	26 75 6 33 3	66 66 12 57	24 54 25 48	63 287 28 45 1	7 462 8 59	2 185 4 38	  
26 9  5	14	11 4  6	14 14  1 3  8	28 14  2 4	21 13  5 6 	16 7  1 1 3 47 2	25 8  4 3 3	25 12  3 3	14 10  2 1 2	21 16  1 3 5	18 18 18  14 5	23 9  1 23 8	39 17  1 62 2	26 16 3  1 16 8	21 18 1 1  13 5	18 18
68 2 162 162 52 9	94 3 45 163  5 63 14 3	81 3  15 147 1 3 50 14 3	128 6 24 171 2 47 13	116 5 31 201  5 49 14 3	233 1  56 175  2 .63 12 7	152 1 28 193  5 56 5	126 1 12 172 172 1 5 41 9	26 191  3 57 3	106  48 190  76 11 10	157  39 182  5 51 19 4	130  25 218  6 71 22 5	190 1 27 229  9 44 9 5	32 234  352 20 7	121 2 45 250 51 20 3	150 6 31 400 1 8 57 21	123 45 339 68 18
505	523	513	512	498	6 547	4 526	10 563	9 517	18 555	16 577	585 585	23 600	18 584	21 536	 8 657	18 660
26	39	25	32	27	10	7	10	10	18	17	17	28	14	3	17	2
3	4	4 2	3 4	8	5 3	2 3	8	4 2		4 2		i	5	2 1	5 2	1
56 5 44  10 16	48 3 58 1 10 6	46 4 61 	52 12 62 8	45 1 61 1 5 7	61 3 55  12 8	49 3 64 2 4 10	49 2 58	49 4 60  6 11	53 4 66  4 17	61 2 80  7 17	56 6 66 1 9	55 4 95 5 7 21	60 3 106 1 11 17	89 87 87 5 29	56 4 95 2 10 26	100
41 51 32 11 4 31	43 57 40 13  11 48	36 43 36 7  6 42	54 62 31 10  6 40	49 51 42 15  3 51	39 55 45 20  7 36	46 56 86 13 4 52	52 72 52 14  12 43	40 57 54 13 1 5 38	51 69 48 14 5 48	42 64 66 18  4 55	44 77 79 16 	57 58 67 26 	109 67 67 19 	60 70 86 13  16 67	66 67 99 32 20 52	86 97 70 19 12 70
3 1 69	2 1 105	2		 1 123	1 98	 1 116	 1 114	116	128	 3 117	 2 144	 1 189	191	 1 216	 4 187	16

#### Table X.—Continued.

		_==					_		
Class.	CAUSES OF DEATH.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.
1.	Consum 1								
1.	Group, 1.								
	2. Fever, Typhus. 3. Measles.	11	81				6	14	18
	4. Scarlet Fever	65	86	311	468	138	45	34	
	5. Small Pox *	5 492	435	259	152	216	101		119
	6. Diphtheria 7. Quinsy † 8. Tonsilitis.	4	3		1	2		3	
	9 Carbuncle	3		1		2	1	3	4
	10. Erysipelas	21 17	17 17	25 9	17 15	37 20	30 28	16	12
	12. Septicæmia					1		3	
	14. Hydrophobia	2 2	3						
	15. Malignant Pustule. 16. Meningitis, Cerebro-Spinal	8	···ii	10		18	28		21
		5	8	6	3	~	8	8	5
	19 Feyer Malarial	1	1	2		1	8	21	29
	20. Fever, Remittent ‡ 21. Fever, Typhoid §	123	136	101	141	117	214		
	29. Influenza	1		4					
	24. Pertussis	32 226		48 311	20 364		71 344	17	
	26. Gonorrhæa	2			1	2			
	27. Syphilis	10 55	70	10 57	10 46	56	49	54	56
	29. Scrofula	11	13 6	13 3	12	15 8			20 15
	31. Tubercular Enteritis								
	32. Tubercular Laryngitis	25	27	36	12				
	34. Tuberculosis, General	25 665		86 645				29 766	
	GROUP 2.								
	1. Alcoholism (Delirium Tremens, Intemperance)	12		15			27	29	
	2. Inanition	5	· · · · i	1	6	2 3	1	10	
	GROUP 3.								
	1. Thrush	8	4 2	1		1	2	2	2
	2. Worms		- ~	,	• • • •	1			
11.	Group 1.								
	1, Gout					l		,	1
	2. Dropsy 3. Angemia.	63	88 2	50 8	37		50 4	47	40
	4. Cancer	185		125		145	132		
	5. Noma (Canker)	8		1 13	9	14	6		10
	7. Rheumatism	54	16	21	24	29	21	27	31
пі.	Character 1								
111.	GROUP 1.	81	81	79	88	107	95	91	78
	2. Apoplexy and Paralysis	109	102	137	119	146	154	157	182
	3 Insanity	72 12	86 22	83 17	19	32	111 23	118 29	36
	4. Chorea. 5. Epilepsy	19		18	3 14		14	1 18	ii
	6 Brain Diseases, etc	81	62	85	76		87	86	83
	7. Nerve Diseases				1				
	Group 2.								
	1. Pericarditis							17	<sub>a</sub>
	2. Anenrism. 3. Heart Diseases etc	183	166	207	235		2	308	500 8
	9. 11.470 7.00 40.00 (0.74)				1				ł

<sup>\*</sup> Includes eight cases of Chicken Pox. † Includes Mumps. ‡ Includes Yellow Fever § Includes Billious, Typhus, and Continued Fevers.

## Causes of Deaths Registered in Rhode Island.

1885.	1886.	1887.	1888.	1889.	1890.	1891,	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.		TOTAL A CENT FOR 45	YEARS,
		132 266 287 8 8 18 18 11 24 7 7 21 1488 1 13 54 4 21 6 6 29 29	11 207 191 4 181 18 24 22 22 22 41 15 508 2 12 13 18 18 32 32 33 32 33 33 33 33 33 33 33 33 33	29 51 7 7 131 13 58 8 2 135 5 4 4 483 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	92 16 10 10 2 22 22 11 11 11 11 11 11 11 11 11 11 1	12 33 33 1 1 102 6 6 12 2 26 6 12 12 12 16 3 8 8 66 6 8 21 12 12 552	28 667 4 89 6 6 13 336 655 14 62 6 550	100 193 157 6  157 7 11 10 8  23 776 6 4 4 129 85  23 87 16 16 53 18 18 18 18 18 18 18 18 18 18 18 18 18	9 123 2 3 5 5 3 3 227 7 1 2 2 160 6 6 6 6 5 1 12 1 1 80	1 54 107 71 107 72 10 115 115 15 15 15 15 15 15 15 15 15 15 1	2 2 3 5 5 5 3 3 2 177 100 4 4 2 4 2 1 13 4 4 2 1 10 6669 1 2 7 3 1 2 1 7 7	29 231 1 144 12 153 1 666 635 21 771 23 8 86 86 86 86	18 21 29 99 22	22 447 299 446 1 1 213 23 422 422 422 422 422 422 422 425 177 844 84 84 84 84 84 124 147 447 447 447 447 447 447 447 447 44	185 62 1 1 190 4 177 41 1 127 255 86 966 6 788 2 2 1 127 28 8 1 1 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4	1 1853- 1 1.208 5.860 221 5.702 56 6987 596 153 22 22 33 533 231 50 586 5.485 1.337 5 1.742 14,652 20 349 2.511 623 280 13 621	
783 22 23 3	12 20 3	710 16 28 2	16 19 5	727 30 7	852 25 31 5	29 37 3	759 36 22 1	722 47 30 5	705 39 14 5	799 24 11 3	846 84 8 4	39 4 1	51 2 3	823 34 5 3	850 62 1 6	27,567 978 299 118	13.15 .47 .14 .06
	2				1								:::			129 43	.02
 44 6 193  19 84	1 47 15 159  6 34	1 39 16 159  15 34	47 13 193 193 19 35	2 44 21 189 3 23 30	46 19 165 4 20 45	35 20 177 1 15 35	39 16 181 21 48	1 39 23 205 17 40	20 214  13 35	29 234 	31 226  28	24 254 254  8 23	18 279 	25 299 	39 303 16 28	8 1,951 397 5,087 33 413 907	
94 185 104 35 23 86	104 230 107 49 2 14 92	112 206 129 61 1 17 91	133 211 156 43 2 16 81	109 210 113 22 1 19 80	172 212 99 30  23 46	178 219 116 21 1 27 45	167 238 124 27 25 79	137 276 131 39 4 12 75	145 289 156 49 1 19 76 13	2 (480 72 1 20 252 13	419 43  21 259 8	469 103 1 17 236 17	416 82 1 11 262 9	457 66 1 25 215 11	506 54 2 28 248 248 22	3,144 9,137 1,148 23 557 3,267 59	1,49 1,36 ,55 ,01 ,26 1,56 ,03
10 4 841	21 2 310	29 5 377	23 6 413	29 7 431	27 8 378	33 5 417	19 8 487	17 4 514	4 37 485	8 7 520	12 6 538	13 4 553	8 2 541	14 5 634	8 8 690	275 153 10.307	.13 .07 4.92

# Table X.—Continued.

Class.	CAUSES OF DEATH.	1853.	1854.	1855.	1856.	1857.	1858.	1859.
III.	GROUP 3.							
	1. Epistaxis 2. Laryngitis 3. Bronchitis 4. Pleurisy 5. Cronp. 6. Asthma 7. Lung Diseases, etc.	2 2 7 27 1 7	1 3 10 43 2 3	12 12 48 2 5	5 5 13 62 3 5	2 7 10 70 2 2	5 13 12 69 2	4 9 18 58 2 3
	Group 4.							
	1. Gastritis 2. Enteritis 3. Peritonitis 4. Ascites. 5. Ulceration of Intestines. 6. Hernia 7. Illeus (Appendicitis) 8. Intrissusception. 9. Stricture of Intestines 10. Fistula. 11. Stomach Diseases 12. Pancreas Diseases 13. Hepatitis. 14. Jaundice 15. Liver Diseases, etc. 16. Spleen Diseases, etc. 17. Bovet Diseases, etc. 18. Diarrhica (Cholera Morbus). 19. Dysentery.	1 2 5 3	3 11 2 3  2 3  5  2 6 2 2 118	3 13 13 13 13 10  4  2 6  3 58 71	8 14 17 10 10 11 11 11 11 11 11 11 11 11 11 11	9 13 5 9 2 3 18 2 55 65	1 23 10 5 6 4 81 44 44 61	4 21 13 1 6 1 1 8 6 3 20 55 55 53
	· Group 5.							
	1. Nephritis (Bright's Disease, etc.). 2. Ischuria 3. Diabetes. 4. Calculus (Gravel, etc.). 5. Cystitis 6. Prostate Disease. 7. Kidney Diseases, etc. 8. Bludder Diseases, etc.	1 1	1 1 1	2 3  1  5 2	3  2  5	2 3  5 13 3	3 2 2 8 2	3 1 4  12
	GROUP 6.							
	Diseases of Male Organs of Generation     Ovarian Diseases.     Uterine Diseases, etc			2			4 3	
	GROUP 7.							
	1. Arthritis	3	i	2	7	6	6	9
	GROUP 8.		}	7		3	2	1
	1. Pilogmon. 2. Ulcer 3. Skin Diseases, etc.		2		1 1 2	2		1
	GROUP 9.							
	1. Eye and Ear							****
IV.	GROUP 1.  1. Stillborn 2. Cholera Infantum. 3. Convursions 4. Cyanosis 5. Debility (Infantile), Premature Birth, etc 6. Teething 7. Hemorrhage, Umbilical 8. Icterus Neonatorum 9. Indigestion 10. Innutrition	21	68 68 1 13 20	91 53 1 34 28	64	70 57 17 85	93 57 88 29	61 50 25 31
	11. Spina Biffda 12. Other Malformations	:			5		1 2	

# Causes of Deaths Registered in Rhode Island.

1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1574.	1875.	1876.
8 18 20 57 3 4	2 18 21 58 8 12	1 7 17 76 3	1 17 14 97 8 3	1 7 16 105 7 4	1 10 16 94 3 3	1 17 20 53 4 4	1 19 16 50 4 2	2 22 13 30 5 2	4 20 19 41 3 3	28 12 53 8 3	24 24 18 72 1	2 26 12 66 4 40	4 29 14 68 7 34	3 40 10 65 10 36	58 10 96 10 13	2 57 9 102 7
11 23 14  2 16 1 1 1  9 7 31  12 48 49	24 7  5 9  17  4 81  4 64 96	4 30 14 4 7 8 6 5 32 2 6 6 52	8 27 5 7 5 12 2 84 1 262 662	11 27 19  2 5 1  4  4  3 37  100 110	6 20 13 5. 7 1 2 4 3 20 1 4 4 90 188	2 30 13  1 9 1  4  6 37  1 74 148	9 34 11  6 11 2  8  5 3 30 0 1  47 118	7 19 9  5 6 1  7  4 4 23  25 5 5 2	9566 4 8 1 2 6 3 2 2 3 6 7 4	10 29 8  6 5 1  8  8  4 46 55	7 13 14  35  43	16 15 24  2 3 1  13  2 2 31  27 118 83	10 24 17 4 5 2 1 15 2 29 777 36	8 37 20 6 1 33 4 36 1 26 73 38	28 29 28  1  13  43 43 11 11 73 36	13 36 24  7 8  10  5 1 39 86 50
1 1 8 1 2 1 15	8 1 15 3	2 1 4 17	4 4 4 	6 2  16 4	 6 2  2 13 2	8 6 2 8 5	17  1 3  15 7	16 11 3 3 8 5	18 6 3 3  1 14 4	15 8 1 2 16 6	24  5 4  2 19	37 	39  8 2  4 27 5	42  5 4  24 10	40  11 2  3 25 4	38  5 1  4 12 9
 i		 i		 i	4		 i	2		 1		 5	3	3	: <sub>i</sub>	2
	15		9		 5		6	12	11	15	5	11	18	15	16	27
3 1	6	4 3 2	2	9 1 2	; i	8 2 3	15 3 4	10 2 2	4 4	9 2	11 2 3	10 1 1	10 5 2	18 3 3	9 3 4	18 3 2
									••••				••••			
167 151 70  42 81 	116 126 70  45 40  3 10	123 106 55 2 35 89	111 114 71  47 34 	138 183 73  46 28 	177 145 78  62 81 	172 110 83  54 23  	163 117 68  60 30 	212 154 63  47 23 	220 151 79 34 24	234 223 85 57 34 	223 172 83 53 20	202 394 116 100 81	028 985 97 169 50 	277 265 98 154 42	246 318 100  135 20 	224 250 89 

## Table X.—Continued.

Class.	CAUSES OF DEATH.	1877	1878.	1879.	1880.	1881.	1882.	1883.	1884.
 III.	GROUP 3.								,
	1. Epistaxis 2. Larypgitis 3. Bronchitis 4. Pleurisy 5. Croup 6. Asthma 7. Lung Diseases, etc	73	8 93 8	2 67 13 96 13 12	94 17 66	6 86 9 101 16 20	8 77 9	18 71 14	11 118 5 80 10
	GROUP 4.								
	1. Gastritis. 2. Enteritis 3. Peritonitis 4. Ascites 5. Ulceration of Intestines.	39 17	40 22	17 34 24	18 38 24	27	30 75 30	35 47 40 1 4	27 76 40 2
	4. Ascites 5. Ulceration of Intestines 6. Hernia 7. Illeus (Appendicitis). 8. Intussusception 9. Stricture of Intestines 10. Fistula.	58	3		8 9	5		7 11 3 1	
	11. Stomach Diseases 12. Pancreas Diseases 13. Hepatitis 14. Lundice	6	5 4 40	5 3 44	6 3 49	8 8 35	50	16  7 6 38	10 5 40
	15. Liver Diseases, etc 16. Spleen Diseases, etc. 17. Bowel Diseases, etc. 18. Diarrhoa (Cholera Morbus). 19. Dysentery.	130 52	4 59	61	9 81 28	6 95 42	6 124 68	20 155 54	181 40
	Group 5.  1. Nephritis (Bright's Disease, etc)	9 9 9  2 21 11	4 1 	61 15 1 1  4 20 12	15	54 16 1 1 25 13	18  3 44 14		96 25 4 89 13
	Group 6.								
	Diseases of Male Organs of Generation     Ovarian Diseases.     Uterine Diseases, etc	4	 i			3	6	6 20	12
	GROUP 7.								
	1. Arthritis	15	10	20	15	ii	25	26	38
	Group 8.  1. Phlegmon	7 2 3	13 2 5	14 3		17 3 3	14 2 1	18 1	18 4 5
	Group 9.								
IV.	Group 1.		****					,	
	Stillborn.     Cholera Infantum.     Convulsions.     Cyanosis.     Debliity (Infantile), Premature Birth, etc	242 239 83	248 168 112 72	216 161 104	247 133 3	102	258 325 110	258 242 126 17	325 139 5
	6. Teething 7. Hemorrhage, Umblileal 8. Icterus Neonatorum	27	16	69 22		92 28	10f 88 		128 21
	9. Indigestion 10. Innutrition 11. Spina Bilda 12. Other Malformations	26	82	···· 19	18	26	 2i	19	22

# Causes of Deaths Registered in Rhode Island.

1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896,	1897.	1898.	1899.	1900.	TOTAL A CENT FOR 45 1853-	YEARS,
9 168 7 94 21	9 174 12 90 15 5	1 8 176 15 113 20 13	2 7 228 18 79 18 11	6 260 23 80 16 17	1 5 275 18 83 23 18	1 3 247 26 67 28 6	12 308 34 89 12 10	315 22 50 17 27	12 254 24 32 21 20	9 274 38 30 24 8	17 276 32 24 21 1	15 226 18 17 17 17	236 19 9 12 4	12 241 14 11 21 5	14 295 21 18 20 9	5 223 4.371 704 3,057 454 467	
29 64 35  10 17 4 2 2  6 9 47  8 104 36	30 85 59 2 1 15 13 1 1 1 29 2 60 1 10 110 66	34 13 66  5 13 15  2 1 84  9 12 65 1 10 151 66	37 88 60 1 1 22 3  1 24  3 12 53 12 53 11 10 110 77	42 78 63 7 1 10 30 2 1 1 33  7 11 14 71	38 63 63 2 16 20 2 1 1 35 56 14 131 87	25 71 68 3 7 16 18 6  32  7 19 55 112 59	53 73 62 3 4 22 21 2 3  14 15 13 61  17 160 71	47 68 74 5 15 16 11 3 1 17  14 10 72  71 162 42	43 175 31  8 15 17 4  19 11 9 11 73 1 46 105 41	62 194  1 19 24 7 4 2 23  10 5 70 3 37 79 41	52 197  8 29 7  15  28 15 69 1 85 58 31	62 180  2 14 25 8  2 19 2 7 49  49	70 176  8 28 45 8  1 17 1 14 7 80 60 38	59 217  2 18 28 6  1 20 1 1 76 1 32 67 44	44 268  5 22 81 10 1 2 59  17 9 93  17 44 86	924 2,338 1.112 29 37 340 506 93 25 12 644 4 252 252 1,787 24 617 3,982 3,098	.44 1.12 .53 .01 .02 .16 .24 .04 .01 .31 .12 .85 .01 .29 1.90
143  21 1 12 4 25 9	140  24  23 8 24 3	130 22 1 17 7 39 4	192 13 1 10 4 21 3	176 32 5 18 1 34 6	213 1 27 2 36 2 16 3	220 2 26 2 15 8 16 2	220 2 37  18 5 39 4	238  40 4 22 3 44 6	266 38 5 21 10 47 10	314 8 40 6 16 15 31 6	369 41 3 21 10 27	379  48 4 16 7 8 9	457 39 2 19 12 14 4	463 40 7 31 13 14 5	507 50 4 16 10 11 3	3,826 16 644 91 278 147 947 237	1.82 .01 .31 .04 .13 .07 .45
··· · · · · · · · · · · · · · · · · ·	8	 5 9	 5 5	4 6	 .4 4	8	1 6 8	9 11	14 18	2 17 24	16 37	 8 30	12 24	 8 23	16 28	3 141 265	.07
34	26	1 22	15	1 17	2 23	1 19	2 15	5 9	1 18	23	22	18	12	is	2 13	13 639	.30
21 	13 6 3	15 1 4	19	73	18 2 7	6 4 3	5 1 4		26	7 10	24	13	29	6  5	1 5	436 70 160	.21 .03 .08
								2	10	11	5	8	4	6	s	36	.02
271 279 111 6 132 29 	293 877 121 11 157 26 	276 355 159 10 211 24 	295 467 154 16 280 35  4	329 427 136 11 195 44 	296 582 156 14 225 27  6 19	272 545 137 23 251 52 	343 633 162 19 245 18 	412 603 151 21 224 27 5 	392 496 147 27 873 34 5 	367 500 120 27 389 28 18 5 23 31 5	424 545 102 20 883  8 7 40 37 11 21	423 125 65 31 366 6 6 63 39 9	413 46 49 24 248  2 75 85 9 26	389 473 85 13 282  8 12 74 142 8 38	374 557 43 11 315 5 20 69 167 8	10,561 11,892 4,381 266 5,446 1,237 42 18 126 107 68 707	5.04 5.67 2.09 .13 2.59 .02 .01 .06 .05 .03 .33

## Table X.—Continued.

mark (10 W)								
Class.	CAUSES OF DEATH.	1853.	1854.	1855.	1856.	1857.	1858.	1859.
1V.	GROUP 2.  1. Paramenia				14		24	14
	Group 3. 1. Old Age	58	67	84	76	119	114	117
	Group 4.  1. Atrophy and Debility	18	28	47	58	53	55	43
V.	GROUP 1. (Accidents or Negligence.)							
	1. Fractures and Contusions *		1		4		• • • • •	
	2. Burns and Scalds		9	14	12	7	6	13
	3. Drowning		15	18	13	20	24	24
	4. Falls							
	5. Poison	1	3	6	-4	3	5	4
	6. Suffocation and Strangulation	2	2		7	8		1
	7. Otherwise	31	23	19	16	40	38	37
	GROUP 2.						,	****
	GROUP 3.	3		9	1	1	1	1
	GROUP 4.  1. Suicide	3	3	8	4	8	13	9
	Causes ill-defined	. 15	20	19	1-1	30	14	22
	Causes not stated	. 100	181	169	292	258	296	241

<sup>\*</sup> Includes rallroad accidents,

## Causes of Deaths Registered in Rhode Island.

1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1878.	1874.	1875.	1876,
		-														
13	19	22	21	21	18	24	26	22	27	28	34	36	29	44	35	30
13	19	333	≈1	21	10	2019	≈0	~~	~1	~0	94	50	~3	77	110	30
					1											
116	132	143	161	193	152	178	188	206	217	204	232	233	254	223	216	241
52	62	47	40	42	47	42	41	41	52	56	58	69	84	79	90	78
									1							
						12	8	8	6	9	12	15	16	16	12	10
24	21	14	10	12	16	18	16	16	15	12	12	12	14	23	17	12
32	29	29	21	26	20	27	23	20	24	30	24	29	36	39	35	37
~	9		1	3		17	14	18	21	19	25 2	18	15 5	12 5	20	12
1	3	3	1	1	1				4	-11	~		4	6	5	9
55	31	48	71	64	51	39	39	35	35	33	31	51	55	27	47	47
			•													
		7	3	2	1	1										
4	3	1	5	2		1	5		2	5		2	3	4	3	4
						į										
12	12	8	13	6	12	11	15	18	15	27	19	18	8	18	26	18
37	18	21	20	31	40	33	30	48	51	59	43	87	70 +	57	56	82
188	202	188	217	209	207	171	195	288	300	137	219	376	217	152	207	218
				1									i			

#### Table X.—Concluded.

Class.	CAUSES OF DEATH.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.
IV.	GROUP 2.  1. Paramenia					38		2 42	
	GROUP 3.  1. Old Age	213	222	220	273	247	283	275	293
	GROUP 4.  1. Atrophy and Debility	89	64	79	107	82	106	130	126
V.	GROUP 1.  (ACCIDENTS OR NEGLIGENCE.)  1. Fractures and Contusions*	18 30 14 9	11 44 13 6	13 22 16 7	21 33 14 5	16 29 19 9	17 40 31 7 8	18 27 21 10 12	20 41 31 8 11
	GROUP 2.								
	Group 3.	8	3 8	1	1	. 4	C	3	2
	Group 4.  1. Suicide	25	3 21	18	10	28	31	25	3 22
	Causes ill-defined	. 5(	49	48	3 40	55	45	2:	19
	Causes not stated	195	210	25	288	847	271	186	42

<sup>\*</sup> Includes railroad accidents.

# Causes of Deaths Registered in Rhode Island.

1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	TOTAL AN CENTA FOR 45 1853-1	EKARS
2		1				1	2				4	3				23	.01
26	31	28	33	27	26	22	45	50	62	40	40	45	49	32	58	1,278	.61
267	276	278	290	227	198	185	256	183	187	197	206	159	161	170	268	9,125	4.8
122	136	146	159	281	240	217	241	191	73	85	87	94	50	73		3,821	1.8:
15	20	47	33	48	57	59	89	25	19	36						694	.33
19	23	17	27	20	20	18	21	26	28	28	25	41	21	28	33	781	.3
42	58	39	46	52	71	52	48	47	52	61	39	40	60	45	6-1	1.521	. î
25 9	19	17	18 12	31	32	21 16	23	25 14	28	57 8	48	64	58	61	72 16	768 284	.3
10	10	14	8	9	12	17	26	14	21	53	24	22	19	31	29	313	*.1
58	58	65	46	49	47	50	69	113	80	81	152	89	130	104	122	2,342	1.1
								• • •								14	.0
3	2	22	5	3	2	1	4	3	9	6	2	12	13	15	10	137	.0
20	17	16	21	24	19	-10	19	21	45	31	38	41	46	41	55	823	.9
57	39	85	46	49	45	35	34	31	5	31	16	20	24	23	23	1,680	.5
59	51	19	28	39	43	34	28	68	55	52	29	25	20	22	83	7,468	3.5

## Table X.—Bertillon.

CAUSES OF DEATH.	1853.	1854.	1855.	1856.	1857.	1858.	1859.
I.							,
GENERAL DISEASES	592	902	748	836	935	1,115	926
II.							
DISEASES OF THE NERVOUS SYSTEM AND ORGANS OF SPECIAL SENSE.	130	161	182	185	221	223	217
111.							
DISEASES OF THE CIRCULATORY APPARATUS	29	40	66	44	71	72	65
IV.				•			
DISEASES OF THE RESPIRATORY APPARATUS	94	116	151	213	234	267	219
V.							
DISEASES OF THE DIGESTIVE APPARATUS	79	137	205	178	194	238	208
VI.							
DISEASES OF THE GENITO-URINARY APPARATUS AND ITS ADNEXA	10	8	13	12	25	21	20
VII.							
Puerperal State	12	9	15	24	21	31	28
VIII.							
DISEASES OF THE SKIN AND CELLULAR TISSUE	7	5	12	12	17	12	•
IX.							
DISEASES OF THE ORGANS OF LOCOMOTION	. 8	1	2	7	6	6	
X.							
Malformations	. 8	3 7	11	5	12	14	1.
XI.						,	
Early Infancy	. 10	34	68	88	52	62	50
XII.							
OLD AGE	. 58	67	84	76	119	114	11
хии.							
Affections Produced by External Causes	. 68	56	70	61	82	87	8
XIV.							
ILL DEFINED DISEASES	. 160	180	220	356	336	854	30
Total Number of Deaths	. 1.250	0 1.72	1.816	2.049	2.325	2.616	2.27

Table X.—Bertillon.—Continued.

	-	-															
1860.	1861.	1862.	1863	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876	1877.
1,067	1,255	1,042	1,467	1,480	1,655	1,259	1,101	1,065	1,433	1,278	1,199	1,404	1,635	1,635	1,482	1,504	1,874
245	287	231	282	296	286	294	320	277	320	342	379	446	512	434	454	444	471
76	112	115	103	128	99	117	116	117	130	123	148	190	193	220	192	173	192
272	282	251	314	341	302	292	26-1	265	280	288	341	379	390	414	591	530	417
336	257	285	277	351	316	275	285	292	301	383	317	628	508	505	549	476	513
22	28	24	3-1	23	21	24	43	37	40	41	52	75	80	83	75	66	93
22	26	27	35	37	31	31	34	34	37	44	50	45	46	60	53	48	46
21	29	16	17	18	21	21	29	21	14	19	28	24	30	29	29	35	23
5	15	8	9	ĩ	5	5	6	12	11	15	5	11	18	15	16	27	15
15	13	11	13	8	10	12	17	16	15	14	15	17	15	17	15	11	26
73	85	76	81	74	93	77	90	70	58	91	73	131	219	196	155	97	94
116	132	113	161	193	152	178	188	206	217	204	535	233	254	553	216	241	213
135	108	107	125	116	103	182	122	115	122	139	125	146	156	150	171	153	162
281	268	255	289	288	308	253	27-1	385	10-1	257	348	518	347	218	319	311	311
	-												-				

2.686 2.927 2.591 3.207 3,360 3,405 2,970 2,889 2,912 3,382 3,238 3,344 4,247 4,103 4,229 4,317 4,116 4,450

CAUSES OF DEATH.	1878.	1879.	1880.	1881.	1882.	1883.	1884.
I.							
General Diseases	1,888	1,830	1,879	1,829	1,729	1,809	1,800
11.							
DISEASES OF THE NERVOUS SYSTEM AND ORGANS OF SPECIAL SENSE	492	534	571	609	630	660	671
III.	0						
DISEASES OF THE CIRCULATORY APPARATUS	173	209	243	274	256	336	294
1V.							
DISEASES OF THE RESPIRATORY APPARATUS	523	514	574	565	558	648	597
v.							
Diseases of the Digestive Apparatus	395	381	487	508	672	608	690
VI.							
DISEASES OF THE GENITO-URINARY APPARATUS AND ITS ADDREXA	89	98	111	97	111	184	167
VII.		Ì					
Puerperal State	43	45	51	60	50	60	51
VIII.							
DISEASES OF THE SKIN AND CELLULAR TISSUE	30	32	18	39	24	32	40
IX.							
Diseases of the Organs of Locomotion	10	20	15	11	25	26	35
X.							
Malformations	32	19	13	26	21	19	29
X1.							
EARLY INFANCY	88	91	121	120	134	184	154
XII.							
OLD AGE	222	220	273	247	283	275	298
XIII.							
Affections Produced by External Causes	159	127	157	182	215	185	221
XIV.							
ILL-DEFINED DISEASES	297	352	316	449	366	256	103
Comer Namen of Descript	4 441	4 479	4 890	5.016	5.074	5.282	5.141
Total Number of Deaths	4,441	4,472	4,829	5,016	5,074	5,282	5,14

885.	1886.	1887.	1888.	1889.	1890,	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900	TOTAL A CENT FOR 45 1853-	AGE YEARS,
,851	2,056	2,301	2,288	2,097	2,420	2,153	2,873	2,280	2,166	2,237	2,093	2,035	1,820	2.117	2,578	72.003	36.1
658	737	803	827	706	789	763	846	883	924	941	891	985	902	857	928	22,509	11.3
361	336	414	449	474	419	489	510	540	481	538	560	571	554	656	715	10,858	5.4
761	786	833	869	885	991	945	1,120	1,214	1,028	1,068	1,040	929	825	990	1,348	23,958	12.0
613	790	804	880	871	1,020	976	1,126	1,156	1,035	1,098	1,191	1,038	1,234	1,243	1,423	24,487	12.3
208	210	212	211	250	281	289	303	357	391	434	484	461	542	564	593	5,951	2.9
47	41	54	51	44	45	35.	77	57	72	55	54	60	71	55	99	1,897	.9
43	30	38	45	36	48	31	35	25	43	20	38	20	35	12	25	1.168	.5
31	26	23	15	18	25	20	17	14	19	23	22	18	12	18	9	652	.3
15	15	18	20	19	25	28	16	24	23	32	32	30	35	46	47	775	.3
167	194	245	281	250	266	326	282	277	439	417	418	412	283	315	333	7,009	3.5
267	276	278	290	227	198	185	250	183	187	282	293	258	205	228	268	9.125	4.5
201	213	224	216	243	271	273	331	287	288	330	336	315	354	331	429	7,678	3.8
160	139	93	122	139	136	107	104	143	64	60	52	33	33	26	33	11,070	5.5
,389	5,849	6,340	6,594	6,259	6,934	6,620	7,896	7,440	7,160	7,535	7,504	7,110	6,905	7,458	8,523	199,185	100.0

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CAUSES OF DEATH.	1853.	1854.	1855.	1856.	1857.	1858.	1859.
I.							
General Diseases.							
Typhoid Fever	25	39	63	53	76	42	70
Intermittent Fever and Malarial Cachexia	1 14	11	2 5	4 9	1	4	1 5
Measles		15	3	2	6	75	3
Measies Scarlatina Whooping Cough. Diphtheria and Croup. Diphtheria Grippe. Cholera, Asiatic. Cholera, Nostras. Dysentery	108	46 14	71 4	208 19	147	234 13	71 46
Diphtheria and Croup				• • • • •	• • • • •	6	20
Grippe	2	1	4		15	6	20
Cholera, Asiatic	15	176 15			3	2	6
Dysentery		118	71	51	65	61	53
Erysipelas	3	8	15	12	1 14	20	15
Other Epidemic Affections						1	
Glanders and Farcy.							
Dysentery. Yellow Fever. Erysipelas. Other Epidemic Affections. Purnlent Infection and Septicæmia Glanders and Farcy. Malignant Pustule and Charbon (Anthrax). Rabies. Tubercle of Layyny	····i		1	····i		1	6
Tubercle of Larynx Tubercle of Lungs Tubercle of Meninges. Tubercle, Abdominal	243				400	426	
Tubercle of Lungs Tubercle of Meninges	33	40			52	65	56
Tubercle, Abdominal					4	6	2
Absects, Cold and by Congestion. Tubercle of other organs Tubercle, Generalized							
Tubercle of other organs		· · · i					
Scrofula. Syphilis.	6		8		11	11	8 5
Blennorrhagia of the Adult							
Blennorrhagia of the Adult Cancer and other Malignant Tumors of the Buccal Cavity. Cancer and other Malignant Tumors of Stomach and Liver		3	1 5	4	9	10	
Cancer, etc., of the Peritoneum, Intestines, and Rectum Cancer, etc., of the Genital Organs of the Female					4	3	
Cancer and other Malignant Tumors of Breast		1 1	2	1	4	6	
Cancer and other Malignant Tumors of Breast Cancer and other Malignant Tumors of the Skin. Cancer and other Malignant Tumors of organs not specified.	···ii	13	15		19	22	43
Other Tumors (Tumors of Female Genital Organs excepted)							
Rheumatism, Acute, Articular Rheumatism, Chronic, and Gout Scorbutus.	5	1		4	7	4	7
Scorbutus. Diabetes.							
Goitre, Exopthalmic Addison's Disease							
Leukæmia							
Anomia and Chlorogic	18	7	4		53	12 55	
Other General Diseases. Alcoholism, Acute and Chronic Saturnism.	14		7	18	25	21	22
Other Chronic Poisonings							
3							
II.							
DISEASES OF THE NERVOUS SYSTEM AND THE ORGANS OF SPECIAL SENSE.							
Encephalitis	28						20
Meningitis, Simple							
Meningttis, Epidemic Cerebro-Spinal Locomotor Ataxia, Progressive Other Diseases of the Spinal Cord. Cerebral Congestion and Hemorrhage. Conduct Softenius							
Cerebral Congestion and Hemorrhage	23	25	39	89	42	43	51
Cerebral Softening Paralysis, without specified cause. Paralysis, General.	12	6	20		21	21	28
Paralysis, General Other forms of Mental Allenation	4				16	14	i
Epilepsy	4		8	6	8	9	) (
Convulsions of Children	20	68				57	
Chorea					1		2
Neuralgia. Other Diseases of the Nervous System Diseases of the Eye and Appendages.	31	84	31	30	45	36	فلنكسا
Diseases of the Eye and Appendages							
	1	1			)		

1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.
677 1 1 99 8 8 64 4 46 6 64 7 2 2 6 6 7 7 1 1 1 1 1 1 1 1 3 3 5 5 5 2 6 5 5 2 2 6 6 6 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6	944 33 5 111 577 445 140 96 14 523 3 3 14 4 1 24 6 8 8 3 62 83 30	844 61 61 61 4 4 47 22 44 47 22 44 42 42 44 42 44 42 44 42 44 44 42 44	1288 636 911 244 1555 6 14 1 13 2 13 2 14 47 13 2 14 40 12 440	1166 11 100 266 2666 2566 5 5 9 1110 498 49 49 3	233 1 2 2 2 1 6 2 5 5 5 6 6 1 2 2 2 2 2 2 2 2 3 3 4 7 4 7 4 7 5 5 5 6 6 1 2 2 2 2 3 3 4 7 5 5 5 6 6 6 1 2 2 2 3 3 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	1522 22 22 155 288 288 28 28 28 28 28 28 28 28 28 28 2	126 126 122 124 124 125 125 126 126 126 126 126 126 126 126 126 126	866 1 2 20 93 3 266 2 25 200 2 2 25 31 25 7 7 36	1066 3 3 3 19 286 48 33 111 74 14 1 1 5555 76 10 18 11 1 6 4 4 6 17 6 6 17 6 6 17 6 6 17 6 6 17 6 6 17 6 6 17 6 6 17 6 6 17 6 6 17 6 6 17 6 6 17 6 6 17 6 6 17 6 6 17 6 6 17 6 6 17 17 6 6 17 17 17 17 18 17 17 17 17 17 17 17 17 18 17 17 17 17 17 17 17 17 18 17	1577 2 2 6 6 75 39 33 33 33 33 35 55 55 577 51 11	1300 1 1 122 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1900 1 1 2 5 2 1 1 5 4 4 4 6 6 9 2 3 2 3 2 1 1 1 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1722 1 288 287 32 32 33 36 34 38 39 1 1 12 28 8 3 21 22 8 8 3 21 2 8 8 3 21 3 8 8 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	121	150  185 31  185 31  388 36   8 36  11  657 57 4  11 11 14  58  11 14  4  26  11 14  4 .	123 144 800 488 488 159	1233 1 4 4 111 622 32 32 32 32 32 32 32 32 32 32 32 32 3
41	43	36	54	49	39	46	52	40	54	42	44	57	65 44 62	23 37 16	28 38 13	76	78 3 8
51 32 11 4 70 5	57 -40 -13 -11 -70 -5 	43 36 7 6 55 6 	62 31 10 6 71 8	54  42  15  78  4  54	55 45 20 7 73 6 	56 36 13 4 83 3	72 52 14 12 68 3	57 54 13 5 63 3 1	69 48 14 5 79 2 48	64 66 8 4 85 5	777 79 16 10 83 5	58 67 26 13 116 8	67 67 19 15 97 2	70 86 13 16 98 8	67 99 32 20 100 5	95 	109 72 12 19 83 5 1

			1			1	i
CAUSES OF DEATH.	1878.	1879.	1880.	1881.	1882.	1883.	188
I.							
GENERAL DISEASES.							
yphoid Fever	136	101	141	117	214	239	1
ntermittent Fever and Malarial Cachexia	1	2	3	10	8	200	^
ariola				3	2	2	
easles	81 86	311	468	37 138	6 45	14 34	
hooping Cough	54	43	20	68	71	9	
iphtheria and Croup	435	259	152	216	10t	95	
easies sariatina hooping Cough iphtheria and Croup. iphtheria rippe bolera, Asiatic, bolera (Notras	499	4	10%	3	1		1
nolera, Asiatic			···;		1		
holera, Nostras	6 40	44	28	18 42	23 68	26 54	
ysenteryellow Feverrysipelas			1				١.,
rysipelas	17	25	17	37	30	28	
ther Epidemic Affectiousurulent Infection and Septicæmia	3	1 2		····i		3	
landers and Farcyalignant Pustule and Charbon (Anthrax)							
alignant Pustule and Charbon (Anthrax)	3			1	1		
ubercle of Larynx							1:
ubercle of Lungs	685	645		712	744	766	
ubercle of Meninges	70 6	57	46	56	49	54	
alignant Pustule and Charbon (Anthrax). abies. ubercle of Larynx. ubercle of Lungs ubercle of Meninges. ubercle, Abdominal. ott's Disease bscess, Cold and by Congestion. ubercle of other organs.							١.
bscess, Cold and by Congestion							•
ubercle of other organs. ubercle, Generalized crofula.	27	36	12	39	27	29	
erofula	13	13	12	15	14	22	
yphilis	4	10	1	, 4	16	18	
lennorrhagia of the Adult. ancer and other Malignant Tumors of the Buccal Cavity. ancer and other Malignant Tumors of Stomach and Liver				ľ~		2	
ancer and other Malignant Tumors of Stomach and Liver	15	24	18	27	20		
	18	21	21	22	14	12	
ancer and other Malignant Tumors of Breast	11	10		16	13	21	
ancer, etc., of the Genital Organs of the Female	75	70	78	80	85	61	
					00		١.
heumatism, Acute, Articular		100		29		23	
theumatism, Acute, Articular, theumatism, Chronic, and Gout. corbutus. labetes. loitre, Exopthalmic.	16	24	24	29	21	4	ı.
liabetes	4	15	15	16	18	15	5
dison's Disease							
ddison's Diseaseeukæmia næmia and Chlorosis							
næmia and Chlorosis	2	8		1 4	4	7	
ther General Discaseslcoholism, Acute and Chronic	64 15			84 24			
aturnism. other Chronic Poisonings							
other Chronic Poisonings			• • • • •	• • • •			
11.							
DISEASES OF THE NERVOUS SYSTEM AND THE ORGANS OF SPECIAL SENSE,							
ncephalitis	78						
leningitis, Simple. Jeningitis, Epidemie Cerebro-Spinal. Jecomotor Ataxis, Progressive	3				28	20	
ocomotor Ataxia, Progressive	11	10	20	18	26		1
ther Diseases of the Spinal Corderbral Congestion and Hemorrhage							١.
erebral Congestion and Hemorrhage	102	187	119	146	154	157	Ϊ.
erebral Softening aralysis, without specified cause. aralysis, General ther forms of Mental Alienation.	86	88	96	101	111	118	3
aralysis, General	22	17	19	32	29		١.
bilepsy	88						
pilepsy. onvulsions of Children	112	104	188	102	110	120	3
etanus. horea	- 8	1		8	8	8	
Curaigià							
Teuralgia. Ther Diseases of the Nervous System	62	85	76	82	87	80	5
Diseases of the Eye and Appendages							1:

1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	TOTAL A	TAGE
									1							1853-	1897.
1055 34 45 91 42 92 24 36 36 47 77 77 77 71 20 24 24 34 33 86 61 44 22 21	121 43 43 188 88 84 9 228 7 7 177 666 177 544 19 418 23 112 11 48 8 5 5 23 3 14 4 15 5 156 61 12 15 156 12	1166 85 286 266 66 21 666 21 132 257 287 29 21 13 1 1 1 1 45 8 8 21 1 21 25 58 33 2 2 31 16 16 31 174 16 31 32 2 31 32 2 31 32 2 31 32 2 31 32 2 31 32 2 31 32 2 31 32 2 31 32 2 31 32 2 31 32 2 31 32 2 31 32 31 32 32 31 32 32 31 32 31 32 31 32 31 32 31 32 31 32 31 32 31 32 31 32 31 32 31 32 3	221 771 111 2077 444 27 1 300 500 500 133 244 22 11 11 12 23 35 588 12 225 21 11 73 33 2 2 33 3 2 31 178 178 178 178 178 178 178 178 178 17	1355 40 299 517 1844 28 28 2727 588 40 41 40	107 42 1 92 166 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1499 1149 1121 1122 1123 1123 1123 1122 1127 1177 117	1333 366 44 288 667 255 899 336 711 25 13 13 11 500 155 144 550 26 36 37 455 37 455 37 166 29 21 36 36 36 36 36 166 1 1 166 1	129 100 193 233 231 157 252 253 18 16 15 25 25 25 25 25 25 25 25 25 25 25 25 25	1600 300 22 9 9 123 1239 1250 166	125 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	1133 42	666 44 33 29 566 45 61 45 61 45 62 777 71 71 70 30 30 20 21 660 366 38 30 38 30 30 30 30 30 30 30 30 30 30 30 30 30	766 311 8 21 966 22 933 88 5 765 771 300 11 239 44 233 166 22 22 188 8 455 16 6	90 300 300 300 300 300 300 300 300 300 3	127 21 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5,485 642 213 1,208 5,860 1,742 5,702 1,337 705 3,098 2987 31 153 32 25,511 306 10 349 25,511 306 10 349 25,511 306 10 349 25,511 306 10 349 40 40 40 40 40 40 40 40 40 40 40 40 40	2.755 .322 .111 .611 .2.944 .888 .012 .2.667 .1156 .000 .022 .001 .011 .011 .011 .011 .011
81 13 16  185  101  85 	111 93 10  230  49 14 121 8 2	5 107 24  206  122 64 17 159 7 1	111 119 22 211  156  43 16 154 9 2	10 99 9  210  113  19 186 7 1	511 1211 17 242 99 30 23 156 46	622 1166 16 219 1166 217 187 8 1 1	97, 130 18  238  27, 25, 162 6  79	177 120 40  276  131  89 12 151 151 8 4 	5 140 18  289  156  49 19 147 6 1	2 145 11  417  13  20 120 120 13  120 3 5	165 22 404  15 21 102 4 	166 19  455  14  65  2 1 1  87 1 5	187 67 402 14 82 14 49 1 1 84	155 42 445 12 666 25 35 1	191 84 7 20 473 22 31 16 54 23 43 2 2 1 1	1,915 1,705 533 6.017 3,120 1,148 557 4,981 231 23 2,850 5	.96 .86 .27 .27 .28 .29 .10 .12 .01

CAUSES OF DEATH.	1853.	1854.	1855.	1856.	1857.	1858.	1859.
***							
III.  Diseases of the Circulatory Apparatus.							
		. 2	1	1	9		,
Pericarditis. Endocarditis. Acute. Organic Diseases of the Heart.			61		63		
Angina Pectoris	····i		2 1		2		1
Angina Pectoris.  Affections of the Arteries (Atheroma, Aneurism, etc.)  Embolus and Thrombosis.  Affections of the Veins (Varices, Hemorrhoids, Phlebitis).  Affections of the Lymphotic System (Lymphorpis, etc.)							
Affections of the Lymphatic System (Lymphangitis, etc.). Iemorrhages.				····	4	5	
IV.							
DISEASES OF THE RESPIRATORY SYSTEM.							
Affections of the Larynx	29	44	49			74	62
Preumonia.	2	3	4	5	7	13	9
Pneumonia	48	54	79	120	141	166	125
denrisv	7	10 2	12 2			12 2	18
Asthma. Pulmonary Emphysema. Other Diseases of the Respiratory Apparatus			5	5	2		
other Diseases of the Respiratory Apparatus		3	5	5	z	••••	3
V.							
DISEASES OF THE DIGESTIVE APPARATUS.							
Affections of the Mouth and its Adnexa	1						
ffections of the Pharynx. ffections of the (Esophagus.							
leer of the Stomachther Affections of the Stomach (Cancer excepted)		8	****	19	16	9	12
liarrhoga and Enferific (under two vears)	39	68	91	77	70	93	61
plarrheea and Enteritis, Chronic	16	35	64	47	65	65	70
arasites, Intestinal. Ternias and Intestinal Obstructions	····i	1 2	1 2		1	1 5	2 2
other Affections of the Intestines	4	4	4		4	4	5
eterus Gravis						1	
irrhosis of the Liver				• • • • •			• • • •
iliary ('alculi ther Affections of the Liver	····;	8	8	7	iŝ	35	29
offections of the Spicen.  Peritonitis, Simple (Puerperal excepted)  Other Affections of the Digestive Apparatus (Cancer and	4	2	13	17	5	10	13
Tupercie excepted							
ppendicitis and Abscess of the Iliac Fossa	2	3	10	10	9	6	6
VI.							
Diseases of the Genito-Urinary Apparatus and its					-		
Adnexa.						İ	
Cephritis. Acute	· · · · i						3
ther Diseases of the Kidneys and their Adnexa	i		~~~~	5	15	- 8	12
alculi of the Urlnary Tract		1				2 2	1 4
right's Disease.  ther Diseases of the Kidneys and their Adnexa.  alculi of the Urinary Tract.  iseases of the Bladder.  lseases of the Urethra, Urinary Abscess, etc  iseases of the Prostate.  on-Venereal, Diseases of the Male Genital Organs.  https://doi.org/10.1006						2	
on-Venereal, Diseases of the Male Genital Organs		1				2	
'inmor, Uterine, Non-Cancerousther Diseases of the Uterns		····	1				
ysts and other Tumors of the Ovary.  other Diseases of the Female Genital Organs		]	2	3		4	
ther Diseases of the Female Genital Organs	••••						

1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.
3 66 1 1 1 2	103	109	98	123	98	116 1	114	116	128	:::: :::::::::::::::::::::::::::::::::	144 2 2	189	189	214	186 4 1	166	182  4 1
65 	60  163 21 8  12	77 7 147 17 8	98 17 174 14 8	106 	95 10 175 16 3	54 17 193 20 4	51 19 172 16 4	32 22 191 13 5 5	45 20 190 19 3	55 28 182 12 8 3	74 24 218 18 4 3	68 26 229 12 4	72 29 234 14 7	68 40 250 10 10 10	100 58 -100 10 10	104 57 339 9 7	97 78 226 5 8
3 2 20 151 64 3 3 13 47 14 16	4  177 126  76 4 4 5 4  35  7	4 1 1 12 106 90 2 4 2 43 14 7	33 200 1114 799 4 77 3 3 366 1 5 5 5	8 2 2 15 133 120 1 1 44 19 5	5 1 1 8 145 96 6 4 4 27 1 1 13 7	2 6 1144 755 3 2 1 1 50 13	117 129 61 1 8	4 144 1577 611 2 6 6 2 811 9		4 4 3 3 18 232 55 2 2 7 4 4 45 8 8 5	14 179 76 7 1	29 393 113 113 277 24 24	55 292 292 81  6 30  45 22 17	20  41 2777 90 1 6 26 40 1 20	55 	233 261 1 1 5 5 24 8	8 8 3 299 2522 1366 5 1 52 22 17 8
1 16 1 2 1 1	15 3 1 1	17 1 5	22 4 5 5	16 2 1	 14 2 2  2	8 8 9 5 5 · · · · · · · · · · · · · · · · ·	17 15 3 7 	16 8 3 5 3	18 14 3 4	15 16 1 6 	23 19 4 3 	37 18 5 8	89 27 2 5	42 24 4 10	100 955 22 44 33 1	38 12 1 9 	46 21 9 11 2

	1		1				1
CAUSES OF DEATH.	1878.	1879.	1880.	1881.	1882.	1883.	1884
III.	ł						
Diseases of the Circulatory Apparatus.							
Pericarditis	166	202	231	264		308	
Ingina Pectoris.  Iffections of the Arteries (Atheroma, Aneurism, etc.)  Impolus and Thrombosis.  Affections of the Yeins (Varices, Hemorrhoids, Phlebitis)	6	1 3	2	2		8	
affections of the Veins (Varices, Hemorrhoids, Phlebitis). Affections of the Lymphatic System (Lymphangitis, etc.).  Hemorrhages	1	2 					
IV.				٠			
DISEASES OF THE RESPIRATORY SYSTEM.							
Affections of the Larynx Affections of the Thyroid Body Bronchitis Bronchitis Chronic Peumonia	95	98	74				
BronchitisBronchitis, Chronic	80	67	94			82	1
		311	364 17	9	8	400 18	
Sthma. Pulmonary Emphysema. Other Diseases of the Respiratory Apparatus	8					1	
mer Diseases of the Respiratory Apparatus	19	12	14	20	12	94	'
v. ,							
DISEASES OF THE DIGESTIVE APPARATUS.							
Affections of the Month and its Adnexa	3			1 2	2	2	
Her of the Stomach			l ::::				
Other Affections of the Stomach (Cancer excepted) Diarrhœa and Enteritis (under two years)	27 178	30 175	28 255			51 267	36
Diarrhœa and Enteritis, Chronic Diarrhœa and Enteritis (two years and over)	83	73	95	107	146	155	19
Jarrhoa and Enteritis (under two years).  Jiarrhoa and Enteritis, Chronic  Jiarrhoa and Enteritis (two years and over).  Parasites, Intestinal.  Jernias and Intestinal Obstructions.	10	14	8	15	16	10	
Other Affections of the Intestines. Diseases of the Anus and Fecal Fistulas. Ceterus Gravis.	4		9			21	
'irrhosis of the Liver			••••	;	4	15	
Biliary Calculi. Other Affections of the Liver.	47	52	58	45		35	1
Affections of the Spleen. Peritonitis, Simple (Puerperal excepted). Other Affections of the Digestive Apparatus (Cancer and	22	24	24	27	30	40	4
Tubercle excepted)	12		9	10	8	ii	•••
VI.							
DISEASES OF THE GENITO-URINARY APPARATUS AND ITS ADNEXA.							
Sephritis, Acute	54	61	56	54	44	93	
sright's Disease. Other Diseases of the Kidneys and their Adnoxa Calculi of the Urinary Tract	1 1	20	35	25 1	44	38 1	
Diseases of the Bladder	2	12	9	11 2	14	19	1
Diseases of the Prostate	4	-1	4	1		7	
The state of the same of the s							
'umor, Uterine, Non-Cancerous. uther Diseases of the Uterns. Tysts and other Tumors of the Ovary Other Diseases of the Female Genital Organs.			····;	3	6	20 6	

1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	TOTAL A CENT FOR 45 1853-	AGE YEARS,
389 5 4 	297 9 2 3 1	29  358 11 5 5 3	23 400 9 6 4	29 	27 362 8 8 7 1	33 129 7 5 9 2	19 468 16 3 2 1	8 9 485 12 4 12 4 1 5	10 27 411 15 4 7	8 43 449 24 7 2 2 2	12 58 458 49 6	13 47 466 29 4 9 2	8 37 479 24 2 1	14 72 512 28 5 20 20	8 109 512 33 13 26 3 	272 184 9,857 181 120 84 34 3 123	.14 .09 4.95 .09 .06 .04 .02 .00
103  113 55 465 7 21	99 143 31 481 12 13 2 5	121 153 23 488 15 20	96 201 27 508 18 14 4	86  214 46 183 23 13 3 17	88  234 41 569 18 21 2	70 213 34 568 26 24 4 6	101  257 51 655 34 11 1	57 263 52 776 22 13 4 27	201 53 665 24 18 3 20	39 35 685 38 20 2	237 39 669 32 18 3	32 181 45 635 18 15 2	12 195 41 542 19 11 1 4	23  194 47 686 14 20 1 5	31 1 248 47 966 21 20 7	3,310 3,720 651 14,652 704 423 31 467	1.66 1.87 .33 7.36 .35 .21 .02
1308 115 115 116 117 117	2 1  599 421  135  16 11 1  559  135	1 8 688 3699 1644 177 2 677 1 666 15	4 61 507 131 14 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	25 55 		25 55 572 136  131 22 48  68	5 	64 650 1188 11 26 74 1 40 4 4 52 74	1 2 62 614 117 19 466 31 2 57 1 31 177	 85 597  158 41 2 2 38 44 3 3 23 54 24	677 659 123 15 85 20 659 1 1 23 77 29	81 539 114  22 76 2 5 16  12	93 579 119 41 100 50 1 111 111 161 45		2 4 1 15 59 773 11 104  50 9 45 2 2 3 45  23 23 34	129 65 1,568 12,879 4,488 43 43 642 12 12 13,855 24 1,170 287 506	.077 .03
1143 25 1 1 20 1 4 	140 21 25 1 8 	130 39 1 20 1 7  8 1 5	192 21 11 11 2 4	176 34 53 23 1 1 1 	213 17 2 39 2	229 18 21 3 8 	220 41 22 5 1 1 7 6	258 44 4 27 1 3 5 6	266 47 5 31 	314 34 6 21 1 15 2 10 14 17	369 27 3 22 10 	379 8 4 29 27 7 11 19 8	457 12 22 1 10 17 7	463 14 7 31 2 18 	117 390 9 4 16 3 10 	3,826 963 91 498 116 3 78 187 141	1.92 .48 .05 .25 .01 .07 .00 .04 .09

CAUSES OF DEATH.	1853.	1854.	1855.	1856.	1857.	1858.	1859
VII.							
THE PUERPERAL STATE.							
ocidents of Pregnancy ther Accidents of Labor epticamia, Puerperal bluminuria and Puerperal Eclampsia hlegmasia Alba Dolens, Puerperal ther Puerperal Accidents—Sudden Death	···· 5	2	6 9		8		
VIII.							
DISEASES OF THE SKIN AND CELLULAR TISSUE.							
angrene	5	2	3	4	8	8	
uruncle (Carbuncle)	2			1 4		1	
bscess, Warm ther Diseases of the Skin and its Adnexa		3	2				
IX.							-
Diseases of the Organs of Locomotion.							
ffections of the Bones (non-Tuberculous)							
rthritis, and Other Affections of the Joints	3	1	2	7	6	6	
X.							
						1	
Malformations.	, 3	7	11	5	12	1.3	
lalformations, Congenital (still-births excepted)	9	•	11		1~	1	
XI.							
EARLY INFANCY.							
'ongenital Icterus, Debility and Sclercma other Diseases of Early Infancy	8		29	16	38	29	í
XII.							
OLD AGE							
Senile Debility	58	67	84	76	119	114	1 1
XIII.							
Affections Produced by External Causes.							
Suicide by Poison					1	1 5	s
Spicide by Asphyxia							6
unicide by Hanging or Strangulation							3
nicide by Firearms Suicide by Cutting Instruments							
snieide by Jumping from High Places Other Sulcides				:			
	:			3] 1		i :	5
other Aecidental Traumatisms	31					38	3
Burns and Scalds	1						6
nsolation freezing.							
Electrical Disturbances	,						
Accidental Submersion	12	3 15			20		
Other Acute Poisonings			3 (	5 4	:	3	5
Other External violence (nonneide)	-	3					1
XIV.							
LLE-DEFINED DISEASES,							
Dropsy	4!						
inspecified or Ill-defined Causes of Death	1 112	15	1; 188		288	3. 310	

# TABLE X.—Bertillon.—Continued.

1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1572.	1873.	1874.	1875.	1876.	1877.
9		4	14	14	13	 7 2	 8 7 	12 4 2 16	4	16 6	18 7	9 4	177 5 	3 16 13 28	18 13 22	18 6	 17 5
10 	11 1 14 6	4 5	8 7 2	6 9 3	12 1 7	6 2 8 5	7 15 7	6 1 10 4	4 2 4 4	7 1 9 2	10 2 11 5	12  10 2	12 1 10 7		12 1 9 7	1	8 87 15
5	 15	 8	9		···· 5	5	6	12	11	15		···ii	18	15	16	27	15
15	13	11	13	8	10	12	17	16	15	14	15	17	15	17	15	11	26
42 31	45 40	35 41	47 84	46 28	62 31	54 23	60 30	47 23	34 24	57 34	53 20	100 31	169 50	154 42	135 20	75 99	67 27
116	132	143	161	193	152	178	188	206	217	204	232	233	254	223	216	211	213
1  3  5  521  82 1 7	1 4 81 21 29 8 9		13  14 10  21 1 1 5	6612	12 52 16 		15 61 16 	18 56 16 5 20	15 62 15	27 63 12	19 666 12 	18 18 12 29	86 14 36 4 5 3	23  39 6 5	5	4	22 76 18 30 5 8 8
56 225		46 209	58 237	45 243	61 247	49 204	49 225				56 292			39 209			

	1	1	,				
CAUSES OF DEATH.	1878.	1879.	1880.	1881.	1882.	1883.	1884
VII.							
THE PUERPERAL STATE.							
Accidents of Pregnancy							
Other Accidents of Labor. Septicæmia, Puerperal.	17	9	15	22	28	16	12
Albuminuria and Puerperal Eclampsia. Phlegmasia Alba Dolens, Puerperal	11	8			3	1	18
Other Puerperal Accidents—Sudden Death	15	27	33	32	19	43	3:
VIII.							
Diseases of the Skin and Cellular Tissue,							
Gangrene	10	14	11	14	6	10	1
Furuncle (Carbuncle) Abscess, Warm	13	1 14	5	2 17	1 14	3 18	18
Other Diseases of the Skin and its Adnexa	7	3	2	G	3	1	10
IX.							
DISEASES OF THE ORGANS OF LOCOMOTION.							
Affectious of the Bones (non-Tuberculous)							
Arthritis, and other Affections of the Joints	10	20	15	11	25	26	3:
X.							
Malformations.							
Malformations, Congenital (still-births excepted)	33	19	13	26	21	19	2:
XI.							
EARLY INFANCY.		İ					
Congenital Icterus, Debility and Sclerema	72	69	93	92	101	137	128
Other Diseases of Early Infancy	16	22	28	28	33	47	20
XII.							
OLD Age,							
Senile Debility	222	220	273	247	283	275	293
XIII.							
Affections Produced by External Causes,							
Spicide by Poison							
Suicide by Asphyxia. Suicide by Hanging or Strangulation							
suicide by Submersion							
Suicide by Firearms							
uielde by Jumping from High Places. Other Suicides							
ractures	21	13	10	23	31	25	22
ractures. ther Accidental Traumatisms.	74	73	87	83	107	94	118
Burns and Scaldsnsolation	11	13	21	16	17	18	20
Preezing							
Electrical Disturbances Accidental Submersion Absorption of Deleterious Gases (Suicide excepted)	41	22	33	29	40	27	41
	····	5		19	8	12	11
Other External Violence (Homfelde)	3	í	1	4	6	3	2
XIV.							
ILL-DEFINED DISEASES.							
Oropsy Unspecified or Ill-defined Causes of Death	259	50 302	279	403	50 316	208	42 61

## Table X.—Bertillon.—Concluded.

1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1804.	1895.	1896.	1897.	1898.	1899.	1900.	TOTAL AS CENT FOR 45 1853-	AGK YEARS,
2 19 7	2 10 6 23	25 7 20	18 6	177 6 19	3 19 4 	2 1 12 5 	6 4 30 8 	21 21 4 1 27	8 6 82 13	24 12	16 13	3 19 20	84 11	6 26 13	29 49 23 1	64 27 659 227 5 915	.03 .01 .33 .12 .00
19 1 21 2	6 2 13 9	15 3 15 5	19 19 7	26 17 3	24 2 13 9	16 2 6 7	21 4 5 5	17 3 5	1	3	24	13	29 29	6		446 56 436 230	.22 .03 .22 .12
 34	26	23	15	18	25	20	17	14	19	23	22	is	12	18	7 2	652	83
15	15	18	20	19	25	28	16	21	23	32	32	30	35	46	47	775	.39
132 35	157 37	211 34	230 51	195 55	225 41	251 75	245 87	224	373 66						316 16 1	5,464 1,545	2.74 .78
267	276	278	290	227	198	185	250	183	187	282	293	253	205	228	268	9,125	4.58
20       	97 23 3 3 4 5 5 8 10 6 6 2 2	16 122 17 6 1 1 39 14 7 2	3 7 2 2 2 7 46 8 12 5	2 8 8 8 4 5 126 20 2 2 8 9 5 3	4 1 1 1 3 3	9 9 9 5 5 5 13 3 3 3 124 18 5 5 1 5 5 2 17 15 1	3 2 1 1 2 2 2 2 1 1 8 187 21 17 48 26 9 4	1 2 4 1 160 26 26	158 8 3  5  118 28 8 1  52 21 6	261 283 284 284 295 291 111	10 8  12 2  141 25 47 26 39 21	4 6 6 6 6 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1	156 21 23 4 20 60 10	100 66 77 66 11 158 28 28 29 45 31 6	1 13 9 10 8 1 1 185 33 13 13 64 58 14	63 31 78 42 64 23 3 519 68,699 781 100 15 14 1.521 313 264 187	.03 .02 .04 .02 .03 .01 .00 .26 .00 1.86 .39 .01 .01 .76 .16 .13
44 116	49 90	39 54	48 74	51 58	48 88	38 69	42 62	41 99		60	59	33	33	26		1,980 9,090	1.00 4.56

## TABLE XI.—OCCUPATIONS AND AGES OF DECEDENTS.

Showing the Number and Occupation of Decedents for the year 1900, and for a period of Forty-eight Years and Seven Months, 1852 to 1900, inclusive.

[AGES UNDER TWENTY EXCLUDED.]

		STA	TE OF I	RHODE	ISLAND.	
		1900.		\ S1	EVEN MONTH 1852, to Dec.	is,
OCCUPATIONS.	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.
I.						
TILLERS OF THE SOIL.						
Farmers	151 4 32	10,331 208 1,954	$68.41 \\ 52.00 \\ 61.06$	7,189 65 338	483,215 $5,583$ $20,010$	67.21 $55.12$ $59.20$
Total	187	12,493	66.81	7,592	506,808	66.75
II.						
Professional and Personal.						
Acrobats	1	24	24.00	1	24	24.00
Actors				15 1	$\begin{array}{c} 522 \\ 23 \end{array}$	$\frac{34.80}{23.00}$
Architects				17	955	56.17
Artists	2		53,50	41	2,129	51.92
Assayers and Analytical				8	506	63.25
Chemists				1	$\frac{300}{25}$	25.00
Authors		7-4	74.00	8	551	68.87
Ball-players				2	65	32.50
Chiropodists	1	61	61.00	$\frac{1}{54}$	$\begin{array}{c} 58 \\ 2,673 \end{array}$	-58.00 $-49.50$
Civil Engineers	12	853		280		64.00
Couriers				2	113	56.50
Dancing-masters			FO 50	3	173	57.67
Dentists	2	$\frac{107}{72}$		50 24	$2,664 \\ 1,220$	53.28 50.88

## TABLE XI.—OCCUPATIONS AND AGES.—Continued.

		STA	TE OF 1	RHODE	ISLAND.	
		1900.		FORTY Sune 1,	-EIGHT YEA EVEN MONTI 1852, to Dec.	RS AND HS, . 31, 1900.
occupations.	Total Mortality.	Aggregate Ages.	Аvегаде Аде.	Total Mortality.	Aggregate Age.	Average Age.
Draughtsmen. Electricians. Inspectors. Inventors. Journalists (Editors and Reporters). Judges and Justices. Lawyers. Lecturers.	4 1 11	159 156  211 . 46 705	39.75 52.00 52.75 46.00 64.09	15 18 20 16 52 18 200 2	505 689 1,051 1,054 2,468 1,156 11,439 108	33.67 38.28 52.55 65.87 47.46 64.22 57.19 54.00
Musicians	6 2	313 135	52.17 67.50	85 18	4,035 994	47.47 55.22
graphers Physicians Postmasters Professors and Teachers	$\begin{array}{c} 2\\ 9\\ \cdots\\ 3 \end{array}$	$   \begin{array}{r}     115 \\     464 \\     \dots \\     160   \end{array} $	57.50 51.55  53.33	$   \begin{array}{r}     30 \\     348 \\     \hline     2 \\     \hline     151   \end{array} $	1,428 $20,745$ $68$ $7,560$	47.60 59.61 34.00 50.06
Public Officers Sculptors Sheriffs and Policemen Students. Submarine Divers.	3 1 3 1	173 41 157 20	57.67 41.00 52.33 20.00	95 1 141 88 1	5,636 41 7,712 2,008 73	59.33 41.00 54.69 22.82 73.00
Telephone and Telegraph Operators Treasurers Veterinary Surgeons Weighers and Gaugers	···· 2	81	40.50	24 7 9	731 338 470 576	30.46 48.29 52.22 64.00
Total	76		$\frac{71.00}{56.64}$		100,524	54.10
Optional Activity.						
Agents and Canvassers Insurance Real Estate. Auctioneers. Bankers and Brokers Bank Officers Bartenders Booksellers	10 1 4	190 384 155 637 70 130	47.50 54.86 77.50 63.70 70.00 32.50	233 28 20 6 167 69 54 3	12,048 1,535 1,280 274 10,024 4,441 1,932 213	51.70 54.82 64.00 45.67 60.00 64.36 35.78 71.00

# Table XI.—OCCUPATIONS AND AGES.—Continued.

		STA	TE OF I	RHODE :	ISLAND.	
		1900.		FORTY	EIGHT YEA	RS AND
		1500.		June 1,	even Monti 1852, to Dec	31, 1900.
OCCUPATIONS.		42			0	
	Total Mortality.	Aggregate Ages.	e	Total Mortality.	Aggregate Age.	96
	'ota	gre	Average Age.	ota	gre 18e.	Average Age.
	Mo	Ag	AV	Mo	A A	AV
				1 1	1	
Bottlers				9	314	34.89
Butchers and Marketmen.	11	506	46.00	321	16,539	51.52
Carriage Dealers				2	113	56.50
Coal and Wood	1	76	76.00	16	965	51.52
Dry Goods				4	207	51.75
Fish and Oyster	4	235	58.75	28	1,687	60.25
Furniture	1	68	68.00	4 5	$   \begin{array}{c c}     243 \\     299   \end{array} $	60.75 $59.80$
Grain	1	31	31.00	6	$\frac{299}{347}$	57.83
Hardware	1	56	56.00	5	251	50.20
IceJunk	$\frac{1}{2}$	112	56.00	15	826	55.07
Leather				2	81	40.50
Liquor	6	375	62.50	131	6,085	46.45
Lumber	1	65	65.00	18	1,004	55.55
News	1	28	28.00	6	311	51.67
Provision	1	67	67.00	22	1,245	56.59
Shoe				14	757	54.07
Soap				1	65	65.00
Stove				2	152	76.00
Wool Waste			10.00	1	$\begin{array}{c} 56 \\ 909 \end{array}$	56.00 $56.81$
Clothiers	1	$\begin{array}{ c c c c } & 42 \\ 162 \end{array}$	$\frac{42.00}{40.50}$	16 4	$\begin{array}{c} 309 \\ 162 \end{array}$	40.50
Collectors	$\begin{vmatrix} 4\\2 \end{vmatrix}$	$\frac{102}{102}$	51.00	27	1,163	43.07
Commercial Travelers Contractors and Builders.	10	636	63.60	132	7,913	59.94
Druggists and Apotheca-	10	000	00.00	102	1,0,20	00.02
ries	7	468	66.86	122	8,756	71.77
Fruiterers	1	70	70.00	8	376	47.00
Grocers	20	973	48.65	481	26,047	54.15
Hotel and Innkeepers	4	253	63.25	183	10,108	55.23
Saloon and Restaurant.	6	250	41.67	207	9,545	46.11
Stable	1	28	28.00	77	4,191	54.53
Store	7	368	52.57	58	3,069	52.91
Mail-carriers	05	1.570	69.04	$\begin{vmatrix} 12 \\ 688 \end{vmatrix}$	530 49.014	$\frac{44.17}{61.07}$
Manufacturers	$\begin{vmatrix} 25 \\ 40 \end{vmatrix}$	$\begin{array}{ c c c c }\hline 1,576 \\ 2.219 \end{array}$	$63.04 \\ 55.47$	1,404	42,014 $82,113$	58.48
Merchants	4.0	4,413	00.47	1,404	338	56.33
Opticians Organ and Piano Tuners				6	$\frac{300}{402}$	67.00
Policy Brokers				ĭ	$\frac{102}{24}$	24.00
Pork and Meat Cutters and						
Packers	1	55	55.00	21	938	44.66
Promoters				1	25	25.00

## TABLE XI.—OCCUPATIONS AND AGES.—Continued.

		STA	TE OF 1	RHODE	ISLAND.	
		1900.		FORTY S June 1,	EIGHT YEAR EVEN MONT 1852, to Dec	RS AND RS, . 31, 1900.
occupations.	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.
Railroad Officials Ship Chandlers Tobacconists Traders. Undertakers		169  273	56.33  45.50	6 5 15 283 57	379 318 874 14,259 3,269	63.17 63.60 58.26 50.39 57.35
Total	196	10,829	55.25	5,012	281,016	56.07
IV. Outdoor.—Local.						
Boat-builders Brick-makers Brick and Stone Layers Calkers Carpenters and Joiners Masons Millwrights Pavers Riggers Roofers Ship Carpenters Slaters Stone-cutters and Marbleworkers Superintendents of Highways Tanners and Curriers Wheelwrights	1 101 33 2 3 14 4 2	5,873 2,036 	56.00 58.15 61.69 	32 8 14 15 2,331 975 37 3 24 8 85 9 312	1,999 352 663 1,033 130,887 54,660 2,464 129 1,318 415 5,868 398 15,257 79 3,896 7,061	62.47 44.00 47.36 68.87 56.15 56.06 66.59 43.00 54.92 55.33 69.03 44.22 48.90 79.00 63.87 60.35
TotalV.	160	9,377	58.60	4,032	226,479	55.17
Indoor.—Active.						
Axe and Scythe-grinders. Bakers	<u>6</u>	266	44,33	$\begin{array}{c} 4\\176\end{array}$	222 11,379	55.50 64.65

# Table XI.—OCCUPATIONS AND AGES.—Continued.

		STA	TE OF 1	RHODE 1	SLAND.	
		1900.		FORTY SI June 1,	EIGHT YEA EVEN MONTI 1852, to Dec	RS AND US, . 31, 1900.
OCCUPATIONS.	Total Mortality.	Aggregate Ages.	Аvегаgе Аge.	Total Mortality.	Aggregate Ages.	Average Age.
Basket-makers				7	404	57.71
Belt				13	760	58.46
Bobbin	1	60	60.00	4	203	50.75
Boiler	2	72	36.00	83	3,468	41.78
Bolt			,	1	41	41.00
Broom and Brush	1	70	70.00	16	813	50.81
Button				1	37	37.00
Cabinet	4	272	68.00	144	8,419	58.46
Card		105		4	201	50.25
Carriage, and Trimmers.	3	187	62.33	78	4,332	55.54
Chair				1	70	70.00
Comb		· · · · · ·		5	187 38	37.40 $38.00$
Mattress	2	137	00 50	1 85	5,015	-59.00
Pattern Pianoforte		191	68.50	3	157	52.33
				5	303	60.06
Picker Plane				1	79	79.00
Pump and Block				14	788	55.71
Reed				6	352	58.67
Sash and Blind				10	502	50.20
Scythe				1	83	83.00
Spindle				5	297	59.40
Stopper				1	22	22.00
Stove and Mounters	1			5	245	49.00
Tool	8	418	52.25	40	2,118	52.95
Trunk				3	89	-29.67
Umbrella				2	103	51.50
Wringer		 		1	32	-32.00
Beamers		)		2	59	29.50
Bell-hangers				2	47	-23.50
Blacksmiths and Farriers	39	2,238	57.38	757	41,194	54.42
Bleachers and Fullers	2	48	24.00	72	3,640	50.55
Bonnet-dressers				2	73	36.50
Brewers	2	110	55.00	23	1,114	48.43
Britannia-Workers		197	$\frac{68.50}{68.50}$	$\frac{1}{59}$	3,243	65.00 $54.96$
Calico-printers		137	08.90	1	5,245	54.90 $57.00$
Car-builders				4	219	54.75
Carders	()	128	64.00	15	806	-53.73
Card Grinders	1 4	1.40	03.00	3	138	46.00
Carvers	1			3	147	49.00

## TABLE XI.—OCCUPATIONS AND AGES.—Continued.

STATE OF RHODE ISLAND.							
		1900.		FORTY-EIGHT YEARS AND SEVEN MONTHS. June 1, 1852, to Dec. 31, 190			
OCCUPATIONS.							
	Total Mortality.	Аддгекаtе Адек,	e e	Total Mortality.	Aggregate Ages.	9	
	ota	gere	Frag	ota	ges	Average Age.	
	Mo	A SE	Average Age.	Mon	AE	AV	
Confectioners	3	156	52.00	49	2,288	46.49	
Cooks and Caterers	13	590	45.38	134	6,476	48.33	
Coopers	3	198	66.00	133	8,770	65.94	
Coppersmiths	2	125	62.50	16	969	60.56	
Cutters	1	50	50.00	8	394	49.25	
Nail	1			12	490	40.83	
Decorators				14	526	37.57	
Distillers	)			1	77	77.00	
Dyers	7	328	46.85	154	7,845	50.94	
Founders				10	381	38.10	
Brass and Iron	1	57	57.00	10,	620	-62.00	
Foundrymen	8	385	48.12	23	1,209	52.56	
Gasfitters	1	29	29.00	65	2,830	43.54	
Gilders	1	86	86.00	12	535	44.58	
Gun and Locksmiths			,	26	1,457	56.04	
Hatters				26	1,400	53.85	
Heaters				6	240	40.00	
Iron Rollers and Workers.	4	218	54.50	19	909	47.84	
Japanners				1	47	47.00	
Lathers	1	56	56.00	7	296	42.28	
Loom-fixers	4	144	36.00	4	144	36.00	
Machinists	86	4,388	51.02	1,797	88,002	48.97	
Mechanics	2	552	61.33	508	26,889	52.93	
Melters	1	$\frac{105}{61}$	52.50	12 18	667	55.58	
7.5 17	15	725	61.00 $48.33$	368	1,018 $20,127$	56.55	
Painters and Glaziers	63	3,511	55.73	1,042	50,824	54.69 48.77	
Paperhangers	1	63	63.00	25		52.56	
Plasters and Stucco-	1	(60)	00.00	±0	1,314	11	
workers	2	121	60.50	59	2,856	48.41	
Platers		121	00.00	4	251	62.75	
Electro				6	389.	64.83	
Gold				4	163	40.75	
Plumbers	1	29	29.00	123	4.811	39.11	
Pressmen				6	261	43.50	
Refiners	1	69	69.00	5	189	37.80	
Gold				3	153	51.00	
Oil				1	76	76.00	
Sugar				7	311	44.43	
Soap-boilers				5	353	70.60	
Steampipers	5	187	37.40	13	521	40.08	

# Table XI.—OCCUPATIONS AND AGES.—Continued.

	STATE OF RHODE ISLAND.						
		1900. FORTY-EIGHT YE SEVEN MONT June 1, 1852, to De					
OCCUPATIONS.	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.	
Stove Manufacturers Superintendents and Overseers Tallow Chandlers Tinsmiths Upholsterers Wire-workers Wood-carvers Finishers Turners	25  5 2	1,509 279 120 	60.36 55.80 60.00	397 4 144 61 15 4 7 55	416 22,099 322 6,940 2,520 644 149 383 2,354	59.43 55.66 80.50 48.19 41.31 42.93 37.25 54.71 42.80	
Total	348	18,686	53.70	7,094		51.38	
. VI.							
Indoor.—Activity Restricted.							
Barbers  Bookbinders  Bookkeepers and Account-	18	795	44.17	281 27	9,936 1,278	35.36 47.33	
ants	13 4	611 230	47.00 57.50	$\begin{array}{c c} 452 \\ 23 \\ 5 \end{array}$	$20,432 \\ 1,070 \\ 261$	45.20 $46.52$ $52.20$	
Cigar. Clock and Watch Harness, and Saddlers	$\begin{bmatrix} 1\\2\\4 \end{bmatrix}$	$\begin{array}{c} 86 \\ 134 \\ 212 \end{array}$	86.00 67.00 53.00	$110 \\ 44 \\ 138$	5,052 2,460 6,971	45.92 $55.91$ $50.51$	
Paper Rope Sail	 14	800	57.14	$\begin{array}{c} 7 \\ 25 \\ 38 \\ 656 \end{array}$	389 $1,672$ $2,207$ $37,974$	55.57 66.88 58.08 57.88	
Shoe	$\begin{vmatrix} 14 \\ 2 \\ 90 \\ 4 \end{vmatrix}$	62 3,361 184	31.00 $37.34$ $46.00$	18 1,407 8	51,514 666 53,228 382	37.00 37.83 47.75	
Die-cutters and Sinkers Enamelers Engravers	$\begin{bmatrix} 2 \\ \dots \\ 1 \end{bmatrix}$	88	44.00 55.00	$   \begin{array}{r}     24 \\     8 \\     148   \end{array} $	1,138 445 7,278	47.41 $55.62$ $49.18$	
File-cutters Forgers Finishers	5	187	37.40 44.00	$\begin{array}{c c} 97 \\ 1 \\ 22 \end{array}$	3,961 40 1,085	$ 40.83 \\ 40.00 \\ 49.32 $	

# Table XI.—OCCUPATIONS AND AGES.—Continued.

	STATE OF RHODE ISLAND.						
		1900.		FORTY-EIGHT YEARS AND SEVEN MONTHS, June 1, 1852, to Dec. 31, 1900.			
		1900.		June 1, 1852, to Dec. 31, 190			
OCCUPATIONS.		ab ab			20		
	Total Mortality.	Aggregate Ages.	e ad	Total Mortality.	Aggregate Ages.	ži .	
	Tota	Age	Average Age.	Pota	Age	Average Age.	
	M	*	₹ ,	No.	Å,	4	
Finishers, Brass	5		10.10	7	314	44.86	
Folders		242	48.40	5 1	$\frac{242}{57}$	48.40 $57.00$	
Jewelers		3,102	48.47	1,218	51,380	42.18	
Shell				3	182	60.67	
Knitters		'		3	82	27.33	
Lapidaries				12	430	35.83	
Millers	2	145	72.50	51	2,947	57.78	
Operatives	116	5,440	46.90	2,761	122,126	44.23	
Pearl-cutters	1 7	35	35.00	4	157	39.25	
Polishers	- 1	296	42,28	42	1,914	45.57 $62.00$	
Silver	1	36	36.00	$\frac{1}{2}$	62 59	29.50	
Steel			00.00	1	42	42.00	
Printers	5	240	48.00	214	12,188	56.95	
Proofreaders				1	70	70.00	
Publishers		'		1	54	54.00	
Roll-coverers	1	64	64.00	34	1,947	57.26	
Rubber-workers	11	519	47.18	198	8,330	42.07	
Silversmiths	$\frac{6}{18}$	238	39.67	133	5,929	44.58	
Wool-sorters	7	$975 \\ 428$	54.17 61.14	$\frac{465}{70}$	25,785	55.45 49.26	
# 001-801 te18		#10	01.14	10	3,448	49.26	
Total	405	18,609	45.95	8,766	395,670	45.14	
VII.							
Occupations at Large.							
OCCUPATIONS AT LIARGE.							
Army Officers	1	82	82.00	9	530	58.88	
Naval	1	25	25.00	20	966	48.30	
Bill-posters	1	61	61.00	3	162	54.00	
Boatmen	2	84	42.00	32	1,797	56.16	
BrakemenButlers	9	302	33.44	139	4,184	30.10	
Cab-drivers and Hackmen.				5 56	191 2,461	38.20 $43.95$	
Car-drivers, Conductors,	8	353	44.12	62	2,481	40.01	
and Motormen		000	TTILL	02	2,401	±0.01	
Coachmen	8	471	58.87	209	9,271	44.36	
Drivers	2	109	54.50	49	1,816	38.08	

# Table XI.—OCCUPATIONS AND AGES.—Continued.

	STATE OF RHODE ISLAND.							
		1900.		FORTY-	EIGHT YEAR	RS AND		
		1900.		June 1, 1	ven Month 852, to Dec.	31, 1900.		
OCCUPATIONS.		ø.			0			
	Total Mortality.	Aggregate Ages.	Be.	Total Mortality.	Aggregate Ages.	e .		
	lota	Age	Average Age.	Pota	Age	Average Age.		
	Me	Ag	Av	MC	Ag	A		
Drovers				2	83	41.50		
Elevator Operators	99	1.000	FO 90	2	127	63.50		
Engineers and Firemen	33 5	1,926 $264$	58.36 52.80	$\frac{499}{109}$	24,863 $5,568$	49.83 51.08		
Expressmen Fire Company Members	1	69	69.00	103	455	45.50		
Fishermen and Oystermen.	12	767	63.91	272	14,724	54.13		
Footmen		101	00.071	1	24	24.00		
Highway Surveyors				1	61	61.00		
Hostlers	11	536	48.73	162	7,025	43.36		
House-movers			,	9	611	67.89		
Icemen	1	71	71.00	6	395	65.83		
Janitors	7	411	58.71	107	5,732	53.57		
Laborers	397	19,133	48.19	11,122	549,826	49.43		
Lamplighters	1	43	43.00	21	1,152	54.86		
Laundrymen	4	223	55.75	23	975	42.39		
Linemen	2	67	33.50	14	629	44.93		
Longshoremen	3	141	47.00	3		47.00		
Lumbermen	2	69	34.50	4	222	55.50		
Mail-carriers	3	145	48.33	10	488	48.80		
Milkmen	3	172	57.33	20		35.85		
Peddlers	17	866	50.94			50.06		
Pilots	1	74	74.00	$\frac{24}{2}$	,	55.67		
Porters	3	146	48.67	$\parallel$ 56		46.62		
Roofers	2		63.00	2		63.00		
Sailors	9	405	45.00	318	,	$\frac{48.27}{72.00}$		
Scissors-grinders				1	14	12.00		
Sea-captains or Ship-Mas-	7	472	67.43	$  _{201}$	14,410	71.69		
ters	'	414	01.40	30		44.07		
	1	62	62.00					
Sextons Sinkers of Artesian Wells.	_ ^	0,2	02.00	3		54.33		
Soldiers	2	59	29.50			31.03		
Stage-drivers				8	,	49.75		
Stevedores	2	89	44.50			47.42		
Stewards			1					
Switchmen, Gatemen, etc.								
Teamsters	38							
Theatrical Managers				3	137	45.67		
Waiters	. 5	227	45.40	133	5,396			
Watchmen	12	679	56.58	200	11,471	57.35		
Well-diggers				4	295	73.75		

## TABLE XI.—OCCUPATIONS AND AGES.—Continued.

	STATE OF RHODE ISLAND.							
		1900.		FORTY-SE June 1, 1	FORTY-EIGHT YEARS AND SEVEN MONTHS, June 1, 1852, to Dec. 31, 1900,			
OCCUPATIONS,	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.		
Whitewashers				8 5	452 239	56.50 47.80		
Total	619	30,716	49.62	15,144	744,619	49.17		
VIII.								
EMPLOYMENTS OF WOMEN.								
Actresses. Agents Artists Basket-makers. Box. Broom and Brush. Braid. Cap. Chain. Cigar Dress, and Seamstresses. Boardinghouse-Keepers. Boatwomen. Bookkeepers. Charwomen. Clerks and Saleswomen. Clerks and Saleswomen. Compositors. Cooks. Farming. Hairdressers. Jewelers. Laboring.	3,	374	45.60 23.00 22.80 53.43	3 1 6 2 5 1 1 1 1 4 8 395 26 1 1 1 1 4 5 2 2 2 2 2 1 1 1 2 1 1 2 1 1 2 1 2 1 2	$\begin{array}{c} 112\\ 59\\ 321\\ 149\\ 150\\ 34\\ 66\\ 62\\ 28\\ 15,946\\ 1.626\\ 60\\ 538\\ 60\\ 1,272\\ 28\\ 3,125\\ 124\\ 55\\ 564\\ 699\\ \end{array}$	37.33 59.00 53.50 74.50 30.00 34.00 66.00 28.00 38.00 30.37 40.37 62.54 60.00 27.66 28.00 52.97 62.00 27.50 43.69		
Lace-Knitters Laundresses Matrons	4	217	54.25	51 51	2,536	49.00		
Midwives Milliners Modistes Musicians	3	126	42.00	2 2 63 1 4	102 128 2,262 38 125	51.00 64.00 35.90 38.00 31.00		
Nurses Oculists	1	195 59	48.75 59.00	128 1	7,445 59	58.16 59.00		

## TABLE XI.—OCCUPATIONS AND AGES.—Continued.

	STATE OF RHODE ISLAND.							
		1900.		FORTY-EIGHT YEARS AN SEVEN MONTHS, June 1, 1852, to Dec. 31, 19				
OCCUPATIONS.	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.		
Operatives. Physicians. Postmistresses. Public Officers. Rubber-workers. Servants. Sisters of Mercy.	46  2 25 25	56	28.00	1,112 11 1 2 23 583 38	35,305 647 28 110 668 27,803 1,531	29.04 58.82 28.00 55.00 29.04 45.97 40.29		
Stewardesses	$\begin{bmatrix} \dots \\ 2 \end{bmatrix}$	125	62.50	2 2 2	43 114 99	21.50 57.00 49.50		
Storekeepers Superintendents Tailoresses Teachers	1 4	$75 \\ 192$	75.00 48.00	$ \begin{array}{c c}  & 2 \\  & 150 \\  & 258 \\ \end{array} $	126 $7,010$ $13,033$	63.00 46.73 50.52		
Music Telegraph and Telephone Operators	1 4	24 133	24.00 $33.25$	10	24	24.00 29.90		
Upholsterers	2	50	25.00	1 12	34 341	34.00 28.42		
Total	128	5,188	4,053	3,082	125,370	40.68		

# TABLE XI.—OCCUPATIONS AND AGES.—(RECAPITULATION.)

		STA	re of	RHODE 1	SLAND.	
		1900.		FORTY-EIGHT YEARS AND SEVEN MONTHS, June 1, 1852, to Dec. 31, 1900.		
OCCUPATIONS.	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages,	Ауегаке Аке.
I. TILLERS OF THE SOIL	187	12,493	66.81	7,592	506,808	66.75
II. Professional and Personal.	76	4,305	56.64	1,858	100,524	54.10
III. OPTIONAL ACTIVITY	196	10,829	55.25	5,012	281,016	56.07
IV. OUTDOOR.—Local	160	9,377	58.60	4,032	226,479	56.17
V. Indoor.—Active	348	18,686	53.70	7,094	364,466	51.38
VI. Indoor.—Activity Restricted	405	18,609	45.95	8,766	395,670	45.14
VII. Occupations at Large	619	30,716	49.62	15,144	744,619	49.17
VIII. Employments of Women	128	5,188	40.53	3,082	125,370	40.68
ALL CLASSES	2,119	110,203	52.01	52,580	2,744,952	52.21

TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.

[AGES UNDER TWENTY EXCLUDED]

THIERS   18   18   18   18   18   18   18   1		,			3.1					
1						: :				
1						• •				
1							= -			
1		Pneumonia.			37					-:
NAL AND PERSONAL.   1		Pleurisy.				:::				
11   12   13   14   15   15   15   15   15   15   15		Old Age.				•				:_
1		Liver Diseases.							~	:_:
1		Kidney Diseases.			15	•	182			-: :
NAL AND PERSONAL,   12   12   13   14   15   15   15   15   15   15   15		Insanity.			:					
1	Ш	Influenza.				: 31	ļ			
11   12   13   14   15   15   15   15   15   15   15		Heart Diseases.			66	: 50	34			:::
II   II   Solution		Fevers, Typhoid, etc.			ಎ೦	: —	4			: :
THE Soll   THE Soll		Fevers, Malarial.			:	: :	:			: :
THE Soll   THE Soll     THE Soll   THE Soll     THE Soll   THE Soll     THE Soll   The Soll     The	1	Erysipelas			_	: :	-			::
THE SOIL   THE SOIL     SA	1	Epilepsy.			:	: :	:			: :
T	1	Enteritis.			:	: :	1:			: :
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Table XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.—Continued.

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Old Age.	
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Kidney Diseases.	:- : :- :- :01:00 :-01 :-
Insanity.	[ :- ::::::::::::::::::::::::::::::::::
Influenza.	:= ::::::::::::::::::::::::::::::::::
Heart Diseases,	:31 : - : : : : : : : : : : : : : : : : :
Fevers, Typhoid, etc.	
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Erysipelas	
Epilepsy.	
Enteritis,	
Diarrhæa and Dysentery.	
Diabetes.	
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('ancer,	
Bronchitis,	
Brain, Diseases of,	
Bowel Diseases,	
Bladder, Diseases of.	
Asthma.	
Apoplexy and Paralysis.	
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OCCUPATIONS AND CAUSES OF DEATH.

TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.—Continued.

Suicide.	::		64
Stomach Diseases.	_:_:	:	:
Rheumatism.	::_	:	: : : : : : :
Pneumonia.	::	4	. 03 : . : . ro :
Pleurisy.	::	] :	
Old Age.	::	ಣ	
Liver Diseases.	::		
Kidney Diseases.	::	1#	: : : c1 : : : :
Insanity.	: :	رتر	
Influenza.	::	_	: : : : : : : : : : : : : : : : : : : :
Heart Diseases.	: -	10	::::
Fevers, Typhoid, etc.	::	100	:::::::::::::::::::::::::::::::::::::::
Fevers, Malarial.	<b>-</b> :	-	
Erysipelas.	::	i :	:::::::::::::::::::::::::::::::::::::::
Epilepsy.	::	1:	
Enteritis.		17	
Diarrhæa and Dysentery.	::	i :	
Diabetes.		4	
Consumption.	i : :	o	
Cancer.			===::::::
Bronchitis,		<u>01</u>	
Brain, Diseases of.		1-41	
Bowel Diseases.			:-:-:-:-:-:
Bladder, Diseases of.	;:-:-		
Asthma.		<u> </u>	<del></del>
Apoplexy and Paralysis.	-: :	0.	HOH4 · · H ·
Alcoholism.			· · · · · · · · · · · · · · · · · · ·
Accidents.		01	· · · · · · · · · · · · · · · · · · ·
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TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.—Continued.

Sulcide.	
Stomach Diseases.	
Rheumatism.	
Pheumonia,	:-::::::::::::::::::::::::::::::::::::
Pleurisy.	
Old Age.	
Liver Diseases.	
Kidney Diseases,	
Insanity.	
Influenza,	
Heart Diseases,	
Fevers, Typhoid, etc.	
Fevers, Malarial.	
Erysipelas.	
Epilepsy,	
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('onsumption,	:::::::::::::::::::::::::::::::::::::::
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Bronchitis.	
Brain, Diseases of,	:-:::::::::::::::::::::::::::::::::::::
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Bladder, Diseases of.	
Asthma.	
Apoplexy and Paralysis,	:::=:::=:::::==::::===:::
Alcoholism,	: : : : : : : : : : : : : : : : : : : :
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Table XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.—Continued.

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Pneumonia,	: - : :	3. 3.3	9 : 7
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Liver Diseases.	::::	c.	G1 : :
Kidney Diseases.		18	٠ <u>٠</u> ٠٠ 6
Insanity.		C.J.	→ : →
Influenza.	::==::=	1-	∾ :-
Heart Diseases.	: 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	65	0 : 61
Fevers. Typhoid. etc.		<del>-</del>	٠n : :
Fevers, Malarial.	: : : : : : :	:	: : :
Erysipelas.		-	: : :
Epilepsy.		:	- : :
Enteritis.			31 : :
Diatrhæa and Dysentery.		_	್ ∺
Diabetes,		7	
Consumption.	- · <del></del>	7	= +
Cancer.		10	
Bronchitis.			11 - 1
Brain, Diseases of.			το · · ·
Bowel Diseases.		G1	<del>:</del> :
Bladder, Diseases of.		   ගෙ	
Asthma.		•	::
Apoplexy and Paralysis.		. 27	
Alcoholism,		1 4	
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Table XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.—Continued.

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Stomach Diseases.				31- : : :
Hheumatism.		31		
Pneumonia,	: :31 : :	31		. : : : :
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Liver Diseases.	::-::	1 3.5		-::::
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Influenza.		1 +		:-:::
Heart Diseases,	:: T ::	9		: : : : :
Pevers, Typhoid, etc.	:::::	5.0		: : : : :
Fevers, Malarial.		:		: : : : :
Erysipelas,		:		
Epilepsy.	1 :::::			: : : : :
Enteritis.	:::::	ा		: : : : :
Diarrhoea and Dysentery.	::-::	10,		
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('onsumption,	: : 61 : :	1		01 ± 01 − ;
Cancer.	: : : : -	10		• + • • • •
Bronchitis.		GI		
Brain, Diseases of.		1 22		
Bowel Diseases.				
Bladder, Diseases of,		31		
Asthma.		-		
Apoplexy and Paralysis.	- 51 ·	2		
Alcoholism.		1=		<del></del>
Accidents.	71	1 22		
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Table XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.—Continued.

Suicide.	
Stomach Diseases.	
Rheumatism.	
Pneumonia.	
Pleurisy.	
Old Age.	
Liver Diseases.	
Kidney Diseases.	· · · · · · · · · · · · · · · · · · ·
Insanity.	
Influenza.	
Heart Diseases.	·== ·01= · ·= · · ·== · ·= ·
Fevers, Typhoid, etc.	
Fevers, Malarial.	
Erysipelas.	
Epilepsy.	<del></del>
Enteritis.	
Distribes and Dysentery.	
Diabetes.	
Consumption.	
Cancer,	· · · · · · · · · · · · · · · · · · ·
Bronchitis,	
Brain, Diseases of.	
Bowel Diseases,	
Bladder, Diseases of.	
Asthma.	
Apoplexy and Paralysis.	
Alcoholism.	· · · · · · · · · · · · · · · · · · ·
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Table XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.—Continued.

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Rheumatism,		
Pneumonia.	:: 0 ::	100 m
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Old Age.	::31 = :::31 : ::::::::::::::::::::::::	:0
Liver Diseases.		-
Kidney Diseases.	_ : _ : _ : : : : : : :	7
Insanity.	: : : : : : : : : : : : : : : : : : : :	7
Influenza.	: :1> : : : : : : : : : : : : : : : : :	1-
Heart Diseases.	::::0:::::::::	55
Fevers, Typhold, etc.	· · · · · · · · · · · · · · · · · · ·	1
Fevers, Malarial.		-
Erysipelas.		-
Epilopsy.		
Enteritis.		
Diarrhas and Dysentery.		9
		7
Diabetes,	· · · · · · · · · · · · · · · · · · ·	
Consumption,		09
Сапсет,	:::::::::::::::::::::::::::::::::::::	G:
Bronchitis.		-
Brain, Diseases of.	:: : : : : : : : : : : : : : : : : : :	6.
Bowel Diseases.	:: <u>::::::::::</u>	33
Bladder, Diseases of.	::- :::::::::::::::::::::::::::::::::	-
Asthma.	::-::::::::::::::::::::::::::::::::::::	-
Apoplexy and Paralysis,	:::::::::::::::::::::::::::::::::::::::	3.1
Alcoholism,	: :31 :- : : : : : : : :	1-
Accidents.	:::0::::	66
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	Lathers. Loom Fixers. Machinists. Mechanics. Melters. Miners. Monders. Paper-haugers. Paper-haugers. Plasterers and Stucco-Refiners. Steam-pipers. Steam-pipers. Superintendents and Carlonality. Tinsmiths. Upholsterers.	Total

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Table XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.—Continued.

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Table XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.—Continued.

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Liver Diseases.	. J.G
Hidney Diseases.	14
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Brain, Diseases of,	-
Bowel Diseases.	-
Bladder, Diseases of.	GI
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File-cutters. File-cutters. Folders. Millers. Operatives. Polishers. Silver Silvers. Rubber-workers. Rubber-workers. Tailors. Tailors. Tailors.	Fotal
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Table XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.—Continued.

Suicide.	
Stomach Diseases.	
Rheumatism.	
Pneumonia.	: : : : : : : : : : : : : : : : : : :
Pleurisy.	
Old Age.	: : : : : : : : : : : : : : : : : : : :
Liver Diseases.	
Kidney Diseases.	
Insanity.	
Influenza.	
Heart Diseases.	
Fevers, Typhoid, etc.	
Fevers, Malarial.	
Erysipelas.	
Epilepsy.	
Diarrbæa and Dysentery.	
Diabetes,	
Consumption,	
Cancer.	
Bronchitis.	
Brain, Diseases of.	
Bowel Diseases.	
Eladder, Diseases of.	
Asthma,	
Apoplexy and Paralysis.	:: -: : : :
Alcoholism.	:::::::::::::::::::::::::::::::::::::::
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Table XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.—Continued.

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Liver Discases.	
Kidney Diseases	::
Insanity.	
Influenza.	
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Fovers, Malarial.	: : : : : -
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Bronchitis.	
Brain, Diseases of.	
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	rs. S. S. S. S. S. S. S. S. S. S. S. S. S.
Icemen. Janitors. Laumplighters. Laumplighters. Linemen. Lumbermen. Lumbermen. Mail Carriers. Milkmen.	Porters. Roofers. Sailors. Sea Captains or S Sextons.
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TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.—Continued.

Snicide.	:::- ::	-		
Stomach Diseases.		$ \infty $		: : : :
Rheumatism.		0.1		::::
Pneumonia,	1 : : : : : : : : : : : : : : : : : : :	88		:::::
Pleurisy.		0.1		: : : :
Old Age.		16		:: : ::
Liver Diseases.		$\infty$		: : : :
Kidney Diseases.	_ : :4 : :	56		: = : 00
Insanity.	:-::::	C.1		::::
Influenza.	:::::	16		::: : : : : : : : : : : : : : : : : : :
Heart Diseases.	:::٠٠٠	73		: : - 01
Fevers, Typhoid, etc.	: : : : :	14		:::=
Fevers, Malarial.	::: : : :	70		
Erysipelas.		c)		
Epilepsy.		i		::::
Enteritis.		$ \infty $		::::
Diarrhæa and Dysentery.		9		
Diabetes.				::
Consumption.	::	104		0101
Сапсет,		98		::::
Bronchitis.		<u> </u>		
Brain, Diseases of.		<u> </u>		
Bowel Diseases.		က		
Bladder, Diseases of.		(0)		• • • •
Asthma.		G1 ,		
Apoplexy and Paralysis.		[ <sup>4</sup> ]		· 01 H
Alcoholism.		1 #		
Accidents.		67		
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	ed ch nst ch	-		ks ks ks.
	Stevedores Stewards Switchmen and Gat Teamsters Waiters	Total		Bookkeepers
1	HAR WE	Ĭ		ACCA

Table XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.—Continued.

Suioide.	[ · · · · · · · · · · · · · · · ·	+
Stomach Diseases.		panel
Rheumatism.		•••
		10
Pneumonia,		protei
Pleurisy.		31
ावि ५६६.		
Liver Diseases.		_
Kidney Diseases.	_::::::::::::::::::::::::::::::::::::::	
Insanity.		:
Influenza.		+
Heart Diseases.	:- :- ::, :: : : : : : :	=
Pevers, Typhoid, etc.	[ m : : : : : : : : : : : : : : :	
Pevers, Malarial.		:
Erysipelas,		:
Epilepsy.	: : : : : : : : : : : : :	ಞ
Enteritis.		,
Diarrhosa and Dysentery.	· · · · · · · · · · · · · · · · · · ·	31
Diabetes.		31
Consumption.		45
('ancer,	· · · · · · · · · · · · · · · · · · ·	ó
Bronchitis,		-
Brain, Diseases of.		-
Bowel Diseases,		
Bladder, Diseases of,		
Asthma.		
Apoplexy and Paralysis.		<u> 10</u>
Alcoholism,		
Accidents.	1	
		1
Whole Zumber.	1	117
		•
	::::::::::::::::::::::::::::::::::::	*
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88		
T10N8		:
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	Fig. 1 : 1 : 2 : 3 : 4 : 1 : 1 : 1	
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	orly Services	
	S. S. S. S. S. S. S. S. S. S. S. S. S. S	
	dry dry dry dry dry dry dry dry dry dry	:
	Jewelers Laundresses Milliners. Nurses Coulists Operators Rubber-workers. Servants Sisters of Mercy. Tailoresses Teachers. Music Telegraph and Telephone Operators Waitresses.	Total
	We have seen a s	Lo
		-

TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.—(RECAPTULATION.)

Suicide.	GI		L-	_	2
Stomach Diseases.	6.5	:	0.1		ಬ
Rheumatism.	:	:	G1	<b>GJ</b>	
Pneumonia.	63	TH	65	G1 G1	35
				•	
Pleurisy.		<del></del> -	1°		
Old Age.	3 16	<del></del>		٠٠٠ -	
Liver Diseases.	1		<u> </u>		
Kidney Diseases.	05	#	7	16	1
Insanity.	:	70	<u>e1</u>	Ç.J	+
Influenza.	$\infty$		7	-11	17
Heart Diseases.	75	10	65	16	39 17
Fevers, Typhoid, etc.	-41	2.0	4	0.0	$\infty$
Fevers, Malarial.	:	-	:	:	
Erysipelas.		:	-	:	H
Epilepsy.	1 :	:	:	-	:
Enteritis.	1 :	-	_	ទា	7
Diarrhea and Dysentery.	50	:	-1	10	1 9
Diabetes,	6.1	4	4	:	4
Consumption.	150	· · · · · · · · · · · · · · · · · · ·	61	17	09
Сапсет.	133	:	ū	15	419,
Bronchitis,	61	GI	ಣ	O1	4
Brain, Diseases of.	3.0	+	4	ಣ	9
Bowel Diseases,	:	:	GI	:	ಯ
Bladder, Diseases of.	6.1	ಣ	ಣ	C1	. 7
ysthma,	:	:	:	-	-
Apoplexy and Paralysis.	65	70	61	18	31
Alcoholism,	4	:	4	$\vdash$	1>
Accidents.	S	31	50	15	67
2400May A					
Whole Zumber.	184	73	190	156	339
occupations.	I. Fillers of the Soil	II. Professional and Personal	III. DPTIONAL ACTIVITY	IV. Dutdoor.—Local	V. NDOOR.—Active

TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1900.—(RECAPITULATION.)—Continued.

16

Sulcide.	9	-	-14	35
Stomach Diseases.	L~	S	_	551
Kheumatism.	::	6.1	:0	=======================================
Pneumonia.	::	88	7.0	6 231 13 25 35
Pleurisy.	ા	GI	_	9
Old Age.	ಬ	16	91	80
Liver.Diseases.	15	$\infty$	_	1 1
Kidney Diseases.	7	56	G	231 44 58
Insanity.	1.3	31	:	031
Influenza.	<b>†</b>	16	++	1 7
Heart Diseases.	4. C1	73 16	1	46 254
Fevers, Typhoid, etc.	9	±	+	94
Fevers, Malarial.	_	7.0	:	x
Erysipelas.		Ç1		9
Epilepsy.	:	-	ಣ	10
Enteritis.	ಣ	oc		17
Diarrhea and Dysentery.	31	ಲ	2,3	72
Diabetes.	31		31	
Consumption.	110	26 104	45	32 91 377 19
Cancer.	10	9	$\infty$	<u> </u>
Bronchitis.	9	<u> </u>		91
Brain, Diseases of.	-41	21	-	37.
Bowel Diseases.	<u> </u>	<del>, 5</del>	•	6
Bladder, Diseases of.	01	::		<u></u>
Asthma.	-	0.1	•	5 17
Apoplexy and Paralysis.	30	21	,0	62
Alcoholism,	-	7	:	
	30 11	67 14		7-9
Accidents.		<u> </u>		73
Whole Zumber.	393	009	117	2,050 156 41 179
ocutpations.	VI. Indoor.—Activity Restricted	VII. OCCUPATIONS AT LARGE	VIII. Employments of Women	ALL CLASSES

TABLE XII.—SUPPLEMENTAL DISEASES.

Tumor of Abdomen.	: : : : : : : : : : : : : : : : : : :
Syphilis.	: : : : : : : : : : : : : : : : : : : :
Spinal Sclerosis.	::::::::::::::::::::::::::::::::::::::
Smallpox.	
Scarlet Fever.	::::=::::::::::::::::::::::::::::::::::
Salpingitis.	
Ригрига Нешогградіса.	
Puerperal Peritonitis.	
Prostate Disease.	::: = :::::::::::::::::::::::::::::::::
Otitis Media.	: : : : : : : : : : : : : : : : : : : :
Measles.	
Locomotor Ataxia.	:: = ::::::::::::::::::::::::::::::::::
Hydronephrosis.	:::: : : : : : : : : : : : : : : : : : :
Hodgkins' Disease.	
Hip Disease.	
Hernia.	: : : : : : : : : : : : : : : : : : : :
Fibroid of Uterus,	
Empyema.	: : : : : : : : : : : : : : : : : : :
Embolism.	
Diphtheria.	:::::::::::::::::::::::::::::::::::::::
Carbuncle.	:H::::::::::::::::::::::::::::::::::::
Appendicitis.	:::-::::::
Angina Pectoris.	- : : : : : : : : : : : : : : : : : : :
Aneurism of Aorta.	
Anæmia, Pernicious,	· ::::::::::::::::::::::::::::::::::::
Addison's Disease.	
Abscess, Sub-Phrænic.	
Absecss of Ovary.	
Abseess of Mouth.	:::: : : : : : : : : : : : : : : : : : :
Abscess of Lung.	
Whole Number.	пнитопинавнани
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OCCUPATIC	MALES
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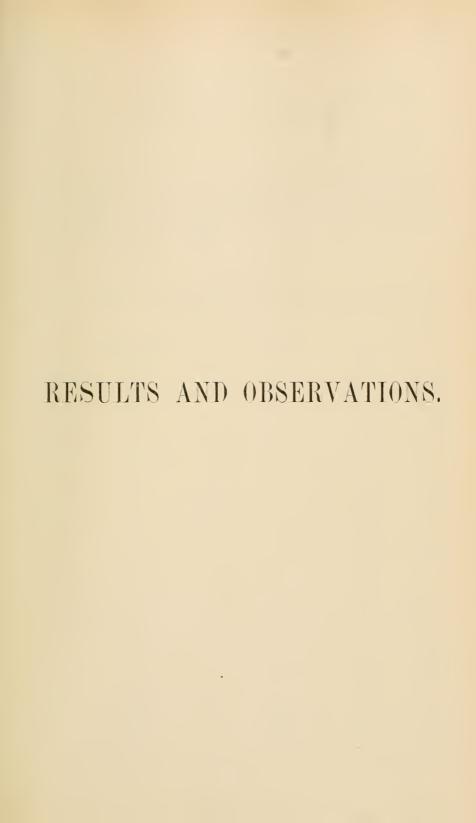
Table XII.—SUPPLEMENTAL DISEASES.—Continued.

٠٠.٦	0000111110		21.20					-								
!1	"Tumor to Abdomen.								:		:	:	:	: :	1	- II
11-	Syphilis.	- :	Ċ	i		·	÷	÷					•		i	-
8-	Spinal Selerosis.	-:	÷	•	-:-		-	÷			•	-		-		₩ï
11-	Smallpox,	-		÷	-:-	_	÷	-	-		-	•			-	
1-	Scarlet Fever.						•	:	<u>:</u> -		-	-			=	
\ <u>-</u>	Salpingitis,						- : -	-				•	:-	:=:	=	. 11
			- :-	:	- '			:-	÷		Ξ.			. =	=	- "
-	Purpura Hemorrhagica.		:		•	·	:	•	:-			<u>.</u>	•		4	<u>"</u>
	Puerperal Peritonitis,		÷		:	:	:		<u>:</u> -	: _:	÷		÷			<del></del> "
-	Prostate Disease.	1	-	-	-	÷	÷	:	:		•				-	31 II
	Otitis Media,	-	÷		•	-:-	•		:	· ·	•	-:-				- 1
0	Measles,							:		: :	•			-	-	- 11
	Locomotor Ataxia,			:	-:	-	-:-	·-	-:	-	_:	•	-	-	-	- II
	Hydronephrosis.		-	•	•	-		•	_:	:	-	-	÷		_	
	Hodgkins' Disease.		:	÷		:		-							_	_
	Hip Disease.	:	:	:	<u>:</u>	÷		Ė	÷		=	÷	. '			
	Hernia.		:	:		_	:	:	:_	:		÷	• .			١ ا
	Fibroid of Uterus,	:	:	•	•	:	•	:		:	:	:	:		_	
	Ешруеша,	_ :	:	:	:	:	•	:	:			÷	:_	:		
	Embolism.	] :	:		:	:	:	:	:	:	:	:	:	:	• ]	-
	Diphtheria.		:	:	:	:	:	:	:	:	:	:	:	:		31
	Carbunele.	:	:	:	_	:	:	:	: -	-	:	:	:	:	:	es
	Appendicitis,		:	:	-	:		, ,	_	: -		- 1	-	:		12
	Angina Pectoris.	:	<b>C1</b>	:	:	:	:	:		:		:	:	:		c.
	Aneurism of Aorta.	:	:	:	:	:	:	:	:	:			:	: -	4	1
	Anæmia, Pernicious.	1	:	:	:		:		:				:	:		C1
	Addison's Disease,	:	:	:			:	:	:	:		:		:		7 1
	Abscess, Sub-Phrænic.	:	:	:			-	:	:	:			:	:		7 1
-	Abscess of Ovary.		:	:	:	- :	-:-	•		:		:	:	:		:
-	Abseess of Mouth.	:		:	-:			:		:		-:-	:	:	:	
-	Abscess of Lung.	1 :	:	:	:	:	:	-:	:	:	-:	:	:	:		
1-		#	3G	-	21	21		_ ,	- r	;   6			7	21 -	4	58
	Whole Number.															7.0
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		ii	3HE	1116	orn	at	teı	lle,	2	ลน		31.8	ch	Su	100	Total
		Machinists	erc	1	ote	el	ii.	gg	un'	186	Shoe-makers	17.6	vit	San	112	
		1	H	Z	M	O	$P_{3}$	Pe	Plumbers	त्र	S	S	S	Teamsters	-	

Table XII.—SUPPLEMENTAL DISEASES.—Concluded.

II MARIADATE TO TOURS T	
Tumor of Abdomen.	i · · · · ·
Spinal Sclerosis. Syphilis.	.    4,
Smallpox.	
Salpingitis. Scarlet Fever.	
Purpura Hemorrhagica.	
Puerperal Peritonitis.	1
Prostate Disease,	1
Measles, Otitis Media,	
II	
Locomotor Ataxia. 1	
Hydronephrosis.	
Hodgkins' Disease.	
Hip Disease.	
Hernia,	
Fibroid of Uterus,	
Ешруета.	
Embolism,	
Diphtheria,	
Carbuncle.	
Appendicitis,	!:-:-:-:-:-:-:-:-:-:-
Angina Pectoris.	
Aneurism of Aorta,	.   m   m
Anæmia, Pernicious.	
Addison's Disease,	
Abscess, Sub-Phrænie.	
Abscess of Ovary.	
Abscess of Mouth,	
Abscess of Lung,	
Whole Mumber.	69
OCCUPATIONS.	Clerks. Cooks Operatives Servants. Teachers. Telegraph Operators. Telegraph Total.

FORTY-EIGHTH REGISTRATION REPORT.





# GENERAL SUMMARY.

The number of births registered in the State of Rhode Island, during the year 1900, was eleven thousand and eighty-four (11,084); the number of marriages, three thousand nine hundred and thirty-six (3,936); and the number of deaths, eight thousand eight hundred and twenty-three (8,823).

TABLE XIII.

General Results of Registration for Ten Years, 1854-1863, and for each of the last Thirty-seven Years.

Years.	Whole Number of Births.	Still-born.	Living Births.	Marriages.	Deaths
1854-1863	38,042	1,471	36,571	14,943	24,230
1864	3.892	138	3.754	1,814	3,360
1865	3,955	177	3,778	1,896	3,40
1866	4,902	172	4,730		2,970
1867	5,127	163	4.964		2,88
1868		212	5,160		2,91:
1869	5,245		5,025	2.289	3,38
	5.215				
	5,678				
	6,143				
	6,022				
	6,466				
	6.508				
	6,329				
	6,714				
	6,350				
	6,295				
	6,761				
	820,7,028,				,
1886			7.328	2,750	5,84

### Table XIII.—Continued.

Years.	Whole Number of Births.	Still-born.	Living Births.	Marriages.	Deaths.
1887		276	7,392	2,839	6,340
	9,426				
	9,270				
	10,048				
1894	9.985	392	9,593	3,271	7,160
	10,249				
	11,174				
	11,218				
	11,143				
	11,220				

During the period of forty-seven years there were recorded, in Rhode Island, 314,545 births, of which number 11,696 were still-born, and 302,849 were living children.

During the same period there were recorded 116,955 marriages, or 233,910 persons married; and 221,063 deaths.

These results show that in every 26.9 births there was one still-born child, or that in every 1,000 births there were about 37 still-born and 963 living children.

The same results also show that the ratio of whole number of living births to the whole number of persons married, and to the whole number of decedents respectively, during the same period, was as follows:

.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Of	Of
	persons married.	Deaths.
For every 100 living births there were	77 9 und	73.0

The number of births in 1900 was 253 in excess of the previous year; the number of marriages 503, or 1,006 more persons married; and there was an increase of 1,365 deaths.

For every 100 births there were:

1 Of Overy 100 Billing bilete wer	· ·					
	Of		Of			
	persons married.					
In 1896	61.9,	and	69.8			
In 1897	58.1	and	65.9			
In 1898	61.1	and	64.4			
In 1899	63,4	and	68.9			
In 1900		and	79.6			

TABLE XIV.

Comparative Exhibit of Births, Marriages, and Deaths in each Town in Rhode Island, in each of the Six Years 1895-1900, and Excess of Births over the Deaths in 1900.

1		Excess o	179 179	164	8.2.7.8	168	7912881	171
		0.	120 170 106	202	105 18 18 515	208	573355 ± 33	610
		1899.	25. 14. 26.	251	3.85 5.85	57.4	921 2 5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	561
	DEATHS.	1898.	501. 201. 201. 201. 201. 201. 201. 201. 2	313	18 g 878	516	365 172 288 568 568 568	191
		1897.	338	331	103 938 938	536	18 18 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	511
		1896.	111 060	053	00 00 00 00 00 00 00 00 00 00 00 00 00	583	2	255
		1895.	8 2 3	326	001 25 25 25 25 25 25 25 25 25 25 25 25 25 2	555	511 515 526 536 536 548 548 548 548 548 548 548 548 548 548	16
		1900.	급등등	158	26 17 191	2000 2000 2000 2000 2000 2000 2000 200	200 100 140 181	257
		1899.	51 21	$\overline{x}$	8 8 3 E	933	161 18 13 20 20 20 20 20 20 20 20 20 20 20 20 20	918
	AGES.	1898.	11 40 36	82	18 31 156	202	150 100 100 110	189
	MARRIAGES	1897.	340	8.	31.	171	1155	308
		1896.	0.48	28	25 S	158	25 157 157 157 157 158 8 8 159 159 159 159 159 159 159 159 159 159	201
		1895.	c.#.	85	88.1	168	445-4250x	235
		1900.	35 1 28 1 28 1 38 1 38 1 38 1 38 1 38 1 38 1 38	361	133 113 113 113	876	25 25 25 25 25 25 25 25 25 25 25 25 25 2	182
		1899.	34 141 149	156	立立 x 気	947	2502 22 2502 2	811
	гиs.	1898.	83 138 139	310	137 39 798	981	8588978788	730
	вистиѕ	1897.	25 15 15 15 15 15 15 15 15 15 15 15 15 15	336	H 218	808	55 55 55 55 55 55 55 55 55 55 55 55 55	7.19
		1896.	28 105 105	85 85	165 76 88 88	934	01 02 07 7 11 11 11	E
1		1895.	38 166 104	308	110 55 11 581	757	258887465 308887465	191
	TOWNS AND DIVISIONS OF THE STATE.		Barrington. Bristol. Warren	BRISTOL COUNTY	Coventry. East Greenwich. West Greenwich. Warwick.	KENT COUNTY	Jamestown Little Compton Middletown Newbourt Cirr New Shordham Portsmonth	NEWPORT COUNTY

Table XIV.—Continued.

of Births.		8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	-37	:	2,261
	1900.	25 25 25 25 25 25 25 25 25 25 25 25 25 2	430	254	8,823
	1899.	200 200 200 200 200 200 200 200 200 200	360	175	7,458
ΓII S.	1898.	25.25.25.25.25.25.25.25.25.25.25.25.25.2	369	170	6,905
DEATHS	1897.	28 28 28 28 28 28 28 28 28 28 28 28 28 2	37.1	192	7,110
	1896.	25.008 2	383	179	7,504
	1895.	100 100 100 100 100 100 100 100 100 100	37.1	153	7,535
	1900.	88 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	211	:	3,936
	1899.	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	169	:	3,433
AGES	1898.	88 25 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	187	:	3,278
MARRIAGE	1897.	25 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	203	:	3,137
M	1896.	1.57.88 65.9 1.72 1.73 1.73 1.73 1.73 1.73 1.73 1.73 1.73	508	:	3,327
	1895.	1131 1131 100 100 100 100 100 100 100 10	213	:	3,496
and a second control of the control	1900.	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	405		11.084
	1899.	8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	431	:	10,831
II S.	1898.	28.28.28.28.29.29.29.29.29.29.29.29.29.29.29.29.29.	445	-	10,730
виктив	1897.	200	467	:	10.795
	1896.	25	490	:	10,750
	1895.	142 94 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	416	:	9.899
TOWNS.	AND DIVISIONS OF THE STATE.	Burrllville CEXTRAL FALLS CTAIRSTON ** CTAIRSTON ** CTAIRSTON ** CTAIRSTON ** FORTON ** GOLOGETE ** Johnston ** Johnston ** Johnston ** Johnston ** Johnston ** Johnston ** Johnston ** PROVIDENCE CITT ** PROVIDENCE CITT ** PROVIDENCE CITT ** PROVIDENCE CITT ** PROVIDENCE COUNTY ** Charlestown ** FROTH ** HOPKINTON ** HOPKINTON ** HOPKINTON ** RECET. ** HOPKINTON **	WASHINGTON COUNTY	STATE INSTITUTIONS	WHOLE STATE

\* Exclusive of deaths in State Institutions.

The varying numbers of the events of births, marriages, and deaths occurring in the different towns during each of the six years ending December 31, 1900, are very concisely presented in Table XIV, and a ready means is thereby afforded of comparing and studying the changes in the vital movements of the people in the different precincts during those years.

The actual increase of population in the State, for the ten years 1890 to 1900, was 83,050, or 24.0 per cent., or an annual average of two and four-tenths per cent. The increase by immigration must have been nearly twice as large as the natural increase.

### TABLE XV.

Births, Marriages, and Deaths in Rhode Island, in 1900, with the number and ratio of each in every 1,000 of the population of each town, and the ratio of excess of the births over the deaths in every 1,000 of the population.

TOWNS AND DIVISIONS OF THE STATE.	Population in 1900.	Births.	Births per 1,000 of population.	Marriages.	Persons married per 1,000 of population.	Deaths.	Deaths per 1,000 of population.	Excess of Births per 1,000.
Barrington Bristol. Warren	1,135 6,901 5,108	22 154 185	19.4 22.3 36.2	11 37 37	19.3 10.7 14.5	21 170 106	18.5 24.6 20.7	0.9 $-2.3$ $15.5$
BRISTOL COUNTY	13,144	361	27.5	85	12.9	297	22.6	4.9
Coventry East Greenwich West Greenwich Warwick	5,279 2,775 606 21.316	133 18 12 713	25.2 6.5 19.8 33.4	26 17 1 191	9.9 12.3 3.3 17.9	105 70 18 515	19.9 25.2 29.7 24.2	5.3 -18.7 -9.9 9.2
KENT COUNTY	29,976	876	29.2	235	15.7	708	23.6	5.6
Jamestown Little Compton Middletown Newport Ciry New Shoreham Portsmouth Tiverton	1,498 1,132 1,457 22,034 1,396 2,105 2,977	15 21 33 599 13 37 66	10.0 18.5 22.6 27.2 9.3 17.6 22.2	3 5 1 206 10 14 18	4.0 8.8 1.4 18.7 14.3 13.3 12.1	19 27 22 423 33 34 52	12.7 23.9 15.1 19.2 23.6 16.1 17.5	-2.7 -5.4 7.5 8.0 -14.3 1.5 4.7
NEWPORT COUNTY,	32,599	784	24.0	257	15.8	610	18.7	5.3
Burrillville. Central Falls Cranston * Cumberland East Providence Foster. Glocester Johnston Lincoln North Providence North Smithfield Pawtucket. Providence Ctty Scituate Smithfield. Woonsocket.	4,305 8,937 3,016 2,422 39,231 175,597 3,361 2,107 28,204	131 610 280 236 252 15 23 149 254 55 1,025 4,503 56 53 960	20.7 33.6 25.2 26.4 20.8 13.0 15.7 34.6 28.7 26.1 25.6 16.7 25.1 34.0	35 161 66 60 73 10 11 12 57 6 19 418 1,900 18 19 283	11.1 17.7 11.9 13.4 12.0 17.3 15.0 5.6 12.8 4.0 15.7 21.3 21.6 10.7	111 352 188 154 211 19 32 70 148 42 49 39 792 3,678 69 54 556	17.6 19.4 16.9 17.3 17.4 16.5 21.9 16.3 16.6 18.9 16.1 20.2 20.9 20.5 25.6 19.7	3.1 14.2 8.3 9.1 3.4 -2.5 -6.2 18.3 11.8 5.7 6.6 5.9 4.7 -3.8 -0.5 14.3
Providence County	326,454	8,661	26.5	3,118	19.3	6,515	19.9	6.6
Charlestown. Exeter Hopkinton. Narraganselt District. North Kingstown. South Kingstown. Hichmond. Westerly.	975 841 2,602 1,523 4,191 4.972 1,506 7,511	16 8 48 20 68 74 25 143	16.4 9.5 18.4 13.1 16.2 14.9 16.6 19.0	3 9 28 10 26 43 4 88	6.2 21.4 21.5 13.1 12.4 17.5 5.3 23.3	17 18 44 20 72 99 28 141	17.4 21.8 16.9 13.1 17.2 19.9 18.6 18.7	$ \begin{vmatrix} -1.0 \\ -11.8 \\ 1.5 \\ 0.0 \\ -1.0 \\ -5.0 \\ -2.0 \\ 0.3 \end{vmatrix} $
Washington County	21,154	402	16.6	211	17.5	439	18.2	-1.6
STATE INSTITUTIONS	2,220					254	113.9	
WHOLE STATE	428,556	11,084	25.9	3,936	18.4	8,823	:0.6	5.8

<sup>\*</sup> Not including State Institutions.

In Table XV, on the preceding page, may be found the varying proportions of the number of births, marriages, and deaths, to every 1,000 of the population in the various towns and cities in the State, as they occurred in 1900.

#### BIRTHS.

### Proportion to Population.

In regard to births, the extreme range of proportion to population was from 6.5 in every 1,000, in East Greenwich, to 36.2 in Warren. Following Warren, in the line of largest proportion, are Johnston, with 34.6; Woonsocket, with 34.0; and Central Falls, with 33.6. Following East Greenwich in the line of smallest proportion of births to population, are New Shoreham, with 9.3 in every 1,000; Exeter, with 9.5; and Jamestown, with 10.0.

The proportions of births to population, in all the counties entire, and in the cities of Central Falls, Newport, Pawtucket, Providence, Woonsocket, and the whole State, during the last seven years, are as follows:

#### BIRTHS TO EVERY 1,000 PERSONS.

1899	1898	1897	1896	1895	1894
22.7	22.0	27.1	23.0	25.2	19.7
27.8	29.6	28.0	30.1	95.9	23.2
24.2	22.9	22.8	24.8	21.8	25.9
26.7	26.1	25.4	27.9	26.9	27.8
26.4	26.8	27.9	28.3	26.8	28.2
31.0 .	32.2	30.2	85.2		
26.1	29.5	28.3	27.5	28.4	21.7
25.9	27.6	27.2	27.8	27.5	28.9
29.5	29.3	32.5	33.9	32.4	32.1
	22.7. 27.8. 24.2. 26.7. 26.4. 31.0. 26.1. 25.9. 29.5.	22.7. 22.0. 27.8. 29.6. 24.2. 22.9. 26.7. 25.1. 26.4. 26.8. 31.0 32.2. 26.1 29.5. 25.9. 27.6. 29.5. 29.3. 16.8. 17.5.	22.7.     22.0.     27.1       27.8.     29.6.     28.0       24.2.     22.9.     22.8       26.7.     26.1.     25.4.       26.4.     26.8.     27.9.       31.0.     32.2.     30.2.       26.1.     29.5.     28.3.       25.9.     27.6.     27.2.       29.5.     29.3.     32.5.       16.8.     17.5.     18.5.	22.7.     22.0.     27.1     23.0       27.8.     29.6.     28.0     30.1       24.2.     22.9.     22.8     24.8       26.7.     26.1     25.4     27.9       26.4.     26.8     27.9     28.3       31.0     32.2     30.2     35.2       26.1     29.5     28.3     27.5       25.9     27.6     27.2     27.8       29.5     29.3     32.5     33.9       16.8     17.5     18.5     19.6	1899     1898     1897     1896     1895       22.7.     22.0.     27.1     23.0     25.2       27.8.     29.6.     28.0     30.1     25.2       24.2.     22.9.     22.8     24.8     21.8       26.7.     26.1     25.4     27.9     26.9       26.4     26.8     27.9     28.3     26.8       31.0     32.2     30.2     35.2       26.1     29.5     28.3     27.5     28.4       25.9     27.6     27.2     27.8     27.5       29.5     29.3     32.5     33.9     32.4       10.8     17.5     18.5     19.6     17.9       25.6     25.9     26.8     27.3     25.7

#### Persons Married.

### Proportion to Population.

The proportion to the population, of persons married, can be more correctly shown in counties, or in cities and aggregates of towns, than in single towns.

The following summary will present the proportions in the manner suggested, for the last seven years:

#### PERSONS MARRIED IN EVERY 1,000.

	1900	1899	1898	1897	1896	1895	1894
Bristol County	12.9	11.3	12.3	13.5	14.0	14.2	18.5
Kent County	15.7	14.0	12.4	10.7	10.2	11.2	13.5
Newport County	15.8	13.5	11.9	13.1	13.1	15.2	14.5
Newport City	18.7	14.5	13.6	14.1	14.4	17.1	15.7
Providence County	19.3	17.3	17.0	16.5	18.2	19.6	18.5
Central Falls	17.7	15.4	16.9	14.1	15.3		
Pawtncket	21.3	17.1	14.9	16.7	20.9	21.2	18.8
Providence City	21.6	20.1	20.3	27.2	21.4	22.2	21.1
Woonsocket	20.0	18.3	16.5	32.5	16.8	20.4	15.0
Washington County	17.5	13.2	14.7	18.5	16.7	17.2	14.4
Whole State	18.4	16.2	15.8	26.8	17.0	18.2	17.4

#### DEATHS.

### Proportion to Population.

The number of deaths, in proportion to the living population, varies considerably from year to year in the different towns. The smaller the towns the greater generally is the annual variation.

The highest rate occurred in West Greenwich, that is, 29.7 in every 1,000 of the population; followed by Smithfield, 25.6, and East Greenwich, 25.2.

The lowest death rate was in Jamestown, that is 12.7 in every 1,000 of the population; followed by District of Narragansett with 13.1, and North Providence with 13.9.

The following summary will give the ratios of mortality to the population in the cities and counties of the State, during the seven years ending December 31, 1900:

### DEATHS IN EVERY 1,000 OF POPULATION.

	1900	1899	1898	1897	1896	1895	1894
Bristol County	22.6	17.6	15.0	18.6	17.9	20.9	16.5
Kent County	23.6	16.8	15.6	16.7	.18.8	. 17.4	.19.8
Newport County	18.7	17.6	.15.5	16.2	.17.0	15.9 ,	.16.9
Newport City	19.2	17.6	15.8	16.9	.17.5	16 . 5	.17.7
Central Falls	19.4	14.1	12.5	18.2	19.9		
Pawtucket	20.2	1.11	15.0	17.7	.18.3	20.1	.18.7
Providence City	20.9	19 . 1	12.5	18.6	. 19.9	21 . 2	.20.3
Woonsocket	19.7	18.6	16.6	17.5	20.8	18.3	.17.6
Providence County	19.9	. 17.6	16.7	17 . 6	.19.2	20.1	.19.1
Washington County	15.2	11.1	11.5	14.7	15.3	15.0	.16.4
Whole State	20.6	17.6	. 16.7	17.6	. 19.1	19 . 6	. 19. 1

The proportion of deaths to the living population in 1900 was smaller than the annual average of the previous six years in all the counties and cities.

TABLE XVI.

Proportion of Births, Marriages, and Deaths to the Population, in the Whole State, in each of the last thirty-two years.

		BIR	rus.	MARR	IAGES.		DEATHS.			
YEARS.	Popula- lion,	Number.	Of population, one birth in every	Number.	Of population, one person married in every	Number,	Of population, one death in every	Deaths in every 1,000 of the popu- lation,		
1869	211,380	5,245	40.3	2,289	46.2	3,382	62.5	16.0		
1870	218,555	5,215	41.9	2,362	46.2	3,238	67.5	14.8		
1871	225,968	5,676	39.S	2,336	48.4	3,344	67.6	14.8		
1879	233,637	6,113	38.0	2.537	46.0	4.247	55.0	18.2		
1873	241,561	6,022	40.1	2,630	45.9	4,403	54.8	18.2		
1874	249,765	6,466	38.6	2,541	49.1	4,229	50.0	16.9		
1875	258,239	6,508	39.7	2,485	52.0	4.317	59.8	16.7		
1876	262.513	6,329	41.5	2.253	58.3	4,116	63.S	15.7		
1877	266,850	6,235	42.8	2,282	58.4	4.450	60.0	16.7		
1878	271,269	6,714	40.4	2,324	58.4	4,441	61.1	16.4		
1879	275,758	6,350	43.4	2,396	57.5	4,472	61.7	16.2		
1880	280,319	6,295	44.5	2.769	50.6	4,829	58.0	17.0		
1881	284,960	6.761	42.1	2.750	51.8	5.016	56.8	17.6		
1882	289,667	6,825	42.4	2,634	55.0	5,074	57.1	17.5		
1883	291,460	7.046	41.8	2,611	56.4	5,282	55.7	17.9		
1884	299,329	7,305	41.0	2,558	58.5	5,141	58.2	17.2		
1885	304,281	7,028	43.3	2,488	61.2	5,389	56.5	17.7		
1886	311,507	7,621	40.9	2,750	56.6	5,848	53.3	18.8		
1887	318,907	7.668	41.6	2.839	56.2	6,340	50.3	19.9		
1888	326,477	7,840	41.6	3,022	51.0	6,594	49.5	20.2		
1889	384,223	8.220	40.7	3,029	55.2	6,259	53.4	18.7		
1890	342,169	8.550	40.0	3,195	53.5	6,934	49.3	20.3		
1891	350,292	9,426	37.2	3.320	52.8	6,620	52.9	18.9		
1892	358,608	9.270	38.7	3,502	51.2	7.396	48.5	20.6		
1893	367,125	10,018	36.5	3,544	51.9	7,110	49.8	20.2		
1894	375,836	9,985	87,6	3,271	57.4	7,160	52.5	19.1		
1895	384,758	9,882	38.9	3, 197	55.0	7,535	51.1	19.6		
1896	393,891	10,750	36.6	3,327	59.2	7,501	52.5	19.1		
1897	403,245	10,795	37.4	3,137	64.3	7,110	56.7	17.6		
1898	414,413	10,730	38.6	3,278	65.2	6,905	60.0	16.7		
1899	422,620	10,831	39.0	3, 433	Ծ1.5	7,158	56.7	17.6		
1900	128,556	11.081	35.7	3,936	51.4	8,823	18.6	20.6		

During the ten years 1871–1880, the average annual birth rate was one birth to every 39.7 of the population, or 25.2 births in every 1,000; during the ten years 1881–1890, the average birth rate was one birth in every 41.0 of the population, or 24.3 in every 1,000, a falling off of a proportion of nearly one birth in every 1,000 of the population.

From 1891 to 1900 the average annual birth rate was one birth in every 37.9 of the population, or 26.2 in every 1,000.

During the period of ten years 1871–1880, the average annual death rate was one in every 58.4 of the population, or 17.2 in every 1,000, according to the returns. During the ten years 1881–1890, the average annual death rate was one in every 53.4 of the population, or 18.8 in every 1,000 of the living. From 1891 to 1900 the average annual death rate was one in every 52.9 of the population, or 19.0 in every 1,000 of the living.

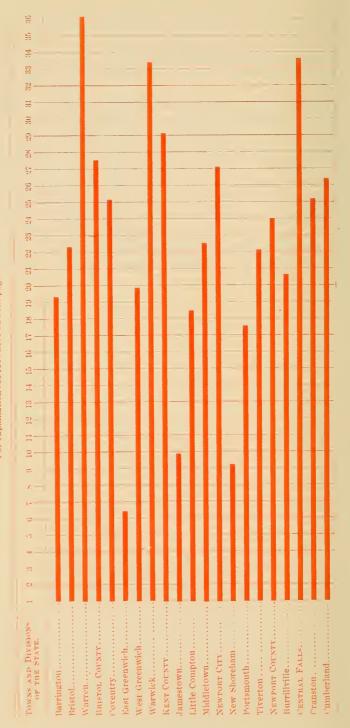
It must be remembered, however, that the returns during the last ten years have been more complete than in previous years.

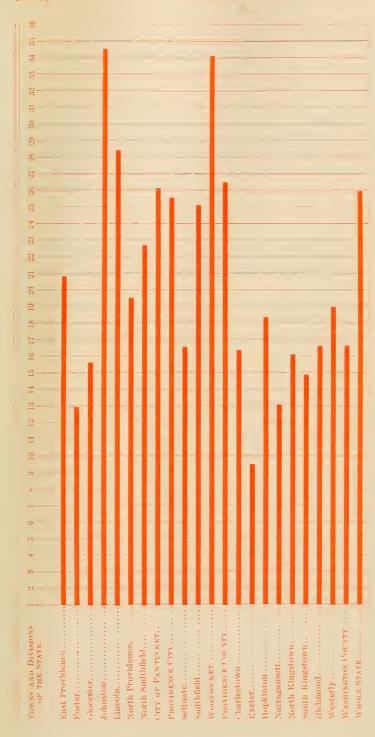


BIRTH RATES.

This is a 1. - Second the Normar of Births in every 1,000 of the Population, in each Town and each County in the State, during the Year Bun, computed upon the Population by the Census of 1900.

For explanation see foot-note on next page





The figures at the top of the perpendicular lines indicate, in whole numbers, the number of births during the year in every 1,000 persons. The spaces are fractional parts of one For instance, the heavy horizontal thin a gainst Barrington, at the top of this diagram, reaches arroad four-tentials of the paper of the heavy hows the birth rate of Barrington, in 1906, was nineteen and four-tentials in every 1,000 of the population.



# BIRTHS, 1900.

The general statistics of births in Rhode Island, during the year 1900, derived from the returns sent to the office of the State Registrar, may be found on pages 2 to 8, inclusive, in Tables I, II, and III.

The whole number reported is 11,084, as before stated, and is 253 more than the number in 1899.

## SEX OF THE CHILDREN.

Of the 11,084 children whose births were registered in 1900 there were 5,625 males and 5,459 females. This gives 103.0 males to each 100 females, or 507.5 males and 492.5 females in each 1,000 children.

The following Table shows the number and sex, and the proportions of each sex, of the children born in Rhode Island, during the ten years 1854–1863, and in each of the last thirty-seven years:

TABLE XVII.

			Males to each	Per 1,000 Births.
Years.	Males.	Females.	Females.	Males. Females.
1854-1863	19,386	18,686	103.6, or	508.8 and 491.2
1864	1,919	1,942	100.3, or	500.9 and 499.1
1865	2.096		112.9, or	530.2 and 469.8
1866	2,546	2,356	108.0. or	519.4 and 480.6
1867	2,665	2.461	107.0, or	518.7 and 481.3
1868	2,745	2.627	101.5, or	511.0 and 489.0
1869	2,685	2,560	101.9, or	511.9 and 488.1
1870	2,679	2,536	105.6, or,	513.7 and 486.3
1871	2,878	2,800	102.8, or	506.9 and 493.1
1872	3,095	3,058	100.8, or	502.2 and 497.8
1873	3,135		108.6, or	520.6 and 579.4
1871	3.311	3,155	101.9, or	512.1 and 487.9
1875	3,362	3,146	106.9, or	516.6 and 484.4
1876	3,291	3,038	108.3. or	520.0 and 480.0
1877	3,163	3,072	103.0, or	507.3 and 492.7
1878	3,402	3,312	102.7, or	506.7 and 493.3
1879	3,259	3,091	102.1. or	513.2 and 486.8
			106.s. or	
1881	3,198			517.3 and 482.7
1882	3,509	3,316	105.8, or	514.1 and 485.9
			101.4, or	
1884	3.713		103.4. or	$\dots$ , 50 $\underline{\mathbf{s}}$ , 3 and 491.7
			101.4, or	
1886	3,897	3,721	104.6, or	511.3 and 488.7
1887	3.968	3,700	107.2, or	517.5 and 482.5

#### Table XVII.—Continued.

			Males to each	Per 1,000
			100	Births.
Years.	Males,	Females.	Females.	Males. Females
1888	4,023	3,817	105.4, or	513.1 and 486.0
1889	4,193	4,027	104.1, or	510.0 and 490.0
1890	4,351	4,199	103.5, or	508.8 and 491.5
1891	4.926	4,500	199.5, or	522,6 and 477.4
1892	4.765	4.505		514.1 and 485.
1894	5.129	4,856		513.7 and 486.
	,		103.3, or	
			102.9, or	
			106.7, or	

The average proportion for forty-seven years is 104.8 males to every 100 females. At the end of five years from birth the number of each sex is about equal, the males having a larger mortality during that period.

#### Proportion of the Sexes. Localities.

In Table II, on pages 6 and 7, will be found the number of children born in the different divisions of the State during the year 1900, together with the number of each sex.

The following Table will give more concisely the whole number of children born, arranged according to sex and locality, and the proportion of male children to every 100 female children:

TABLE XVIII.

BIRTHS, 1900.	Bristol County.	Kent County.	Newport County.	Providence County Towns.	Washington County.	Newport City.	Central Falls	Pawtucket.	Providence City.	Woonsocket.	Whole State.
Males	193	410	97	806	203	319	295	502	2,301	469	5,625
Females	168	436	88	757	199	280	815	528	2,202	491	5,459
Total	361	876	185	1,563	402	599	610	1,025	4,508	960	11,084
Males to each 100 females	114.9	100.9	110.2	106.5	102.0	110.3	93.6	96.0	104.5	95.5	103.0

Compared with the previous year, the decrease in the proportion of male births in the whole State was 3.7 per cent.

The following Table exhibits the proportions of births of the sexes for the past thirty-eight years in the larger divisions of the State and in the whole State:

## TABLE XIX.

## Number of Males to each 100 Females.

						ALL MANAGEMENT AND ADDRESS OF THE PARTY AND AD	
BIRTHS.	Bristol County.	Kent County.	Newport County.*	Providence County Towns.+	Providence City.	Washington County.	Whole State.
1863	120.0	98.4	97.0	101.8	111.4	108.7	105.8
1864	106.8	87.3	90.6	107.4	97.3	103.4	100.3
1865	119.3	118.2	108.8	118.8	113.8	88.1	112.9
1866	109.4	113.1	103.4	104.9	108.4	124.0	108.7
1867	115.5	98.3	117.8	106.3	104.5	120.4	107.7
1868	117.4	88.7	100.2	101.6	102.4	136.5	104.5
1869	115.7	116.7	102.7	98.0	107.5	120.6	104.9
1870	126.4	111.6	100.0	105.1	104.9	99.5	105.6
1871	131.8	97.9	132.5	100.8	95.2	113.3	102.8
1872	109.2	92.8	109.1	103.5	95.7	110.6	100.9
1873	129.2	113.0	117.9	104.5	109.0	104.7	108.6
1874	98.7	111.9	101.3	110.4	102.9	94.0	104.9
1875	95.2	103.1	97.7	104.3	109.1	184.3	106.9
1876	142.1	104.4	108.5	108.0	106.8	103.7	108.3
1877	138.7	102.4	98.5	100.3	104.9	95.3	103.0
1878	120.5	120.6	94.8	101.5	106.8	78.8	102.7
1879	124.3	95.5	103.6	105.4	105.7	106.3	105.4
1880	117.2	110.5	113.5	102.4	107.6	95.4	106.1
1881	91.2	111.3	102.0	105.9	109.0	115.7	107.2
1882	94.7	110.2	112.5	103.3	106.5	105.7	105.8
1883	94.0	97.6	97.0	103.1	102.2	103.1	101.4
			92.9	102.5			
1884	105.0	111.7			105.8	99.0	103.4
1885	132.2	107.3	98.0	104.8	103.6	104.3	104.4
1886	120.0	81.7	102.6	106.7	105.0	121.7	104.6
1887	115.1	121.7	106.6	103.9	107.9	106.7	107.2
1888	98.1	105.1	105.0	103.4	107.4	110.2	105.4
1889	81.9	122.0	107.5	103.6	101.4	110.2	104.1
1890	96.5	113.0	106.8	108.5	98.3	97.4	103.6
1891	107.1	110.4	118.4	107.0	109.1	106.4	109.5
1892	120.0	102.1	102.4	110.7	100.0	98.5	105.8
1893	90.7	101.8	97.7	104.1	104.1	109.0	105.8
1894	103.4	102.4	121.1	110.2	99.6	106.5	105.6
1895	118.1	116.3	100.8	105.0	109.6	115.6	108.2
1896	96.5	95.4	103.7	102.4	105.8	108.5	103.8
1897	101.2	108.4	97.5	103.9	104.4	96.2	103.6
1898	96.2	104.4	98.9	101.6	105.2	102.8	102.9
1899	121.9	103.2	114.0	106.8	102.9	129.2	106.7
1900	114.9	100.9	113.0	99.8	104.5	102.0	103.0

<sup>\*</sup> Including city of Newport. † Including cities of Central Falls, Pawtucket, and Woonsocket.

There will be found in the following summary, in the aggregate, the average number of males to each 100 females, born during the thirty-eight years from 1862–1900, in the different divisions of the State:

Bristol County	111.5 males to each 100 females.
Kent County	105.3 males to each 100 females.
Newport County *	105.2 males to each 100 females.
Providence County Towns +	104.8 males to each 100 females.
Providence City	104.8 males to each 100 females.
Washington County	107.5 males to each 100 females.
Whole State	105.3 males to each 100 females.

### BIRTHS AND SEASON.

Table II, on pages 6 and 7 of this report, gives the number of births occurring in the different months of the year, in the several divisions of the State.

According to this table, the greatest number of births in any one month, in 1900, occurred in August, and the largest in any quarter in the third.

The following table shows the total number of children born in the State of Rhode Island, according to the returns, in each quarter of each of the last six years; and also the aggregate number and the percentage of the aggregate of each quarter in forty-seven years, from 1854 to 1900, inclusive:

(ALL 4 DW) C DW	1900.	1899.	1898.	1897.	1896.	1895.	1854-1900, inclusive.		
QUARTERS,	1300.		1090.	1031,	1890.	109.5.	Number.	Per cent.	
January—March	2,736	2,693	2,686	2,749	2,604	2,260	74,273	23.79	
April June July September	2,581 2,921	2,549 2,791	2,562 2,802	2,386	2,461 2,790	2,345 2,704	78,784 81,755	23.63 26.19	
October December	2,816	2,798	2,680	2,677	2,895	2,578	82,893	26.39	
Whole Year	11,081	10,831	10,730	10,795	10,750	9,882	312,155	100.00	

TABLE XX.

Table XX presents results showing that, according to the registration of forty-seven years, the average proportions of births to

<sup>\*</sup>Including city of Newport.

the whole number of births in the different quarters of the year were as follows:

January-March	.237.9 in every 1,000 births.
April-June	.236.3 in every 1,000 births.
July-September	.261.9 in every 1,000 births.
October-December	.263.9 in every 1,000 births.

The proportions of births in Rhode Island, in the different quarters of the year, to the whole number of births in 1900, were as follows:

1.	January—March24.7 per cent., or247 in every 1,000
2.	April—June
3.	July-September
4.	October - December
	rst six months
Se	cond six months 500 hirths to every 1 000 of whole number

#### Births. Sex and Season.

In Table II, on pages 6 and 7, will also be found the number of births of each sex by months, as they occurred in the different divisions of the State, during the year 1900. From it we ascertain the number of each of the sexes born during each quarter of the year, with their relative proportions, and also the aggregates and proportions of the same for the whole State.

The following table will present a summary of the quarterly periods, number of births, and proportions of the sexes, for the same year:

			Males to each	Per 1,000 each quarter.		
			100			
	Males.	Females.	Females.	Males.	Females.	
1. January-March	1,417	1,319	107.4	518	482	
2. April-June	1,822	1,259	105.0	512	488	
3. July-September	1,415	1,476	97.9	495	505	
4. October-December	1,441	1,405	102.6	506	494	
			44 144			
Whole Year	5,625	5,459	103.0	507	498	

The following table shows the number of male children born to every 100 female children, in each quarter of the last three years; and also the proportion of births of male children to each 100 female children born during seven periods of five years each, from 1866 to 1900, inclusive:

TABLE XXI.

YEARS.	1900.	1899.	1898.	5 years, 1896 to 1900,	5 years, 1891 to 1895.	5 years, 1886 to 1890.	5 years, 1881 to 1885.	5 years, 1876 to 1880.	5 years, 1871 to 1875.	5 years, 1866 to 1870.
First Quarter	107.4	106.2	106.0	103.8	104.6	104.3	105.8	106.0	101.5	106.6
Second Quarter	105.0	107.9	102.4	105.1	107.3	105.4	104.8	102.7	104.7	107.3
Third Quarter	97.9	106.9	102.7	102.8	108.6	104.6	105.1	107.1	104.8	106.0
Fourth Quarter	102.6	105.9	100.7	104.2	105.8	106.5	102.5	108.2	106.5	104.8
Total Average	103.0	106.7	102.9	103.9	106.5	105.2	104.5	106.2	104.2	106.2

The above table shows the variation of the proportions of the sexes in the different quarters in the different years, and seems to conclusively determine that season has very little, if any, influence in the causation of sex.

#### PARENTAGE.

By reference to Table I, page 4, in the division of births, there will be found the parentage of the children born in Rhode Island during the year 1900. It will be seen that of the whole number, 11,084, there were 3,388 of native parentage, 5,499 foreign, and 2,197 of mixed parentage.

By mixed parentage is meant the children born of native fathers and foreign mothers, and of foreign fathers and native mothers.

Of native fathers and foreign mothers there were 1,078, and of foreign fathers and native mothers, 1,119.

The following table will show the number and parentage of the children born in the State and the variations of the same from year to year, in each of the last three years; and also the number and variations occurring in four periods of five years each, and two of ten years each, from 1858 to 1900, inclusive:

TABLE XXII.

PARENTAGE.	1900.	1899.	1898.		5 years, 1888 to 1892.			10 years, 1868 to 1877.	
Native father and mother	3,388	3,290	3,113	16,762	16,511	15,001	14,169	25,645	20,321
Foreign father and mother	5,499	5,495	5,307	25,684	18,737	15,245	13,562	26,356	19,665
Native father, foreign mother.	1,078	1,031	1,014	4,819	4,021	3,044	2,327	3,135	1,690
Foreign father, native mother.	1,119	1,015	996	4,795	4,037	3,378	2,887	4,077	1,696
Parentage not stated									293
Total	11,081	10,831	10,730	51,160	41,806	36,668	82,915	59,213	48,665

The following table of *percentages* will show, in a different and perhaps clearer way, the same changes that have occurred in the proportions of the births in the different classes of parentage during the last three years, and during forty-three years, from 1858 to 1900, inclusive, in four periods of five years each, and two of ten years:

TABLE XXIII.

PARENTAGE.	1900.	1899.	1898.		1888 10			10 years, 1868 to 1877.	
Native father and mother	30.56	30.37	31.81	32.60	38,25	40,91	43.03	43.36	46.84
Foreign father and mother	49,61	50.74	49.46	48.73	43.14	11.58	41.23	44.53	45.36
Native father, foreign mother	9.73	9.52	9,45	9,36	9.30	8.30	6.95	5.37	3 89
Foreign father, native mother	10.10	9.37	9.28	9.31	9 31	9,21	8.79	6.74	3.91
Total	100.00	100,00	100.00	100.00	100.00	100.00	100.00	100 60	100.00

The registration of births, in 1900, is of interest as continuing to show, as usual, a smaller proportion of children born of native fathers than of foreign fathers. A considerable number of those recorded as native fathers were themselves children of foreign parentage.

The percentage of children of mixed parentage was about the same, in 1900, as in the previous year.

The following table will present the percentages of children of native and of foreign-born fathers, and of native and foreign-born mothers, respectively, in each of the last three years, and in each of four periods of five years each and two of ten years each, from 1858 to 1889, inclusive:

TABLE XXIV.

CHILDREN WITH	1900,	1899.	1898.	1893 to	years. 1888 to	years, 1883 to	5 years, 1878 to 1882.	years, 1868 to	1858 to
Native fathers	40.29	39.89	11.26	41.96	47.56	49.21	50.08	48.73	50.78
Foreign fathers	59.71	60.11	58.74	58.01	52.44	51.79	49.92	51.27	49.26
Native mothers	40.66	89.75	41.09	41.91	47.57	49.91	51.79	50.10	50.75
Foreign mothers	59.34	60.25	58.91	58,09	52.43	50.09	48.21	49.90	49.25

The percentage of the children born of foreign fathers and of foreign mothers, during 1900, was smaller than in 1899.

The number of native fathers of children born, in 1900, was 2,152 less than the number of foreign fathers, and the number of native mothers was 2,070 less than of foreign.

#### BIRTHS OF COLORED CHILDREN.

The number of births of children of colored parentage reported for the year 1900 is 231. This number is 30 greater than in 1899, and also 15 greater than in 1898.

In regard to sex, the numbers and proportions were as follows, viz.: males, 120; females, 111; or 108.1 males to each 100 females.

As the number of colored persons in the State was, according to the census of 1900, 9,125,\* the ratio of births in this class would be 25.3 per thousand, or 1 to each 39.5 colored inhabitants.

The following summary will show the changes that have occurred from year to year, in the proportions of the sexes of colored children born in Rhode Island, during the last twenty-five years:

				Males to
W	hole			each 100
Years. ' Nu	ımber.	Males.	Females.	Females.
1876-1885	1,762	849	913	93.0
1886	212	117	95	123.0
1887				
1888	202	109	93	117.2
1889	191	87	107	81.3
1890	183	89	94	94.6
1891				
1892	182	91	88	106.8
1893				
1894				
1895				
1896				
1897				
1898	216	105		94.6
1899				
1900				

The following table will show the location, number, sex, etc., of colored births during 1900:

<sup>\*</sup> This does not include Chinese or Japanese.

Table XXV.
Showing Number, Sex, etc., of Colored Births, 1900.

TOWNS AND CITIES.	Whole Number.	Males.	Females.	COUNTIES.
Bristol	1		1	Bristol County 1
Warwick	3	2	1	Kent County 3
Little Compton	1	1		
Middletown	1	1		
NEWPORT CITY	47	28	19	
New Shoreham	1	1		
Portsmouth	1	 	1	Newport County 51
CENTRAL FALLS	3	1	2	
Cranston	6	3	3	
East Providence	8	2	6	
Pawtucket	3	3		
Providence City	141	69	72	Providence County 161
Charlestown	1	1		
Hopkinton	1	1		
North Kingstown	2	1	1	
South Kingstown	7	5	2	
Richmond	1	1		
Westerly	3		3	Washington County 15
	~= .			
WHOLE STATE	231	120	111	231

#### NUMBER OF CHILD OF THE MOTHER.

In the following table will be found the number of the child of the mother born during 1900; that is, how many of the children born were reported as the first, second, or third child, etc., of their respective mothers. The statistics on this subject begin with the year 1857, and the following table includes the children reported during the last six years, and also the total for forty-four years, 1857 to 1900, inclusive:

### TABLE XXVI.

NUMBER OF THE CHILD OF THE MOTHER.	1895.	1896.	1897.	1898.	1899.	1900.	44 years, 1857-1900.
First	2,329	2,574	2,438	2,393	2,426	2,640	72,937
Second	2,008	2,125	2,098	2,059	2,089	1,977	59,346
Third	1,512	1,672	1,687	1,631	1,635	1,616	46,117
Fourth	1,129	1,233	1,291	1,310	1,286	1,342	34,978
Fifth	895	918	927	982	942	978	26,072
Sixth	640	666	712	715	753	771	19,229
Seventh	429	488	499	532	544	531	13,786
Eighth	304	337	342	378	382	378	9,798
Ninth	203	259	260	231	238	289	6,657
Tenth	148	161	180	180	176	199	4,550
Eleventh	102	123	132	105	130	125	2,854
Twelfth	65	71	89	80	86	82	1,846
Thirteenth	36	40	50	54	58	63	1,096
Fourteenth	27	26	37	33	39	34	590
Fifteenth	22	12	14	10	12	24	308
Sixteenth	5	13	6	5	7	7	156
Seventeenth	2	4	4	8	4	2	86
Eighteenth	2	3				1	36
Nineteenth	2	3	2	3	1	1	26
Twentieth					1	1	10
Twenty-first					1		5
Twenty-second					1	1	-1
Unstated	22	22	27	21	20	22	376
Total	9,882	10,750	10,795	10,730	10,831	11,084	300,863

There was an increase of 253 in the whole number of births in 1900 from the number in 1899.

There are varying differences in the proportions of all classes in the different years.

There was one return of birth each in the nineteenth, twentieth, and twenty-second classes.

The proportion of each class to the whole number will be shown by the following table, which gives the percentage of the children born in each of the last four years who were respectively the first, second, third, etc., children of the mothers; and which will also give the average percentage of each class of births in each of the last four years, and also in two periods of ten years, and two periods of five years, comprising the thirty-three years from 1868 to 1900, inclusive:

Number of the Child.	1900.	1899.	1898.	1897.	1893 to	5 years, 1888 to 1892.	years, 1878 to	1868 to
First	23.52	22.40	22.30	20.52	23.78	25.20	23.7	25.2
Second	17.84	19,29	19.19	19.43	19.90	19.77	19.1	20.7
Third	14.58	15.09	15.20	15.63	15.29	14.94	15.5	15.5
Fourth	12.11	11.87	12.20	11.96	11.45	11.10	11.7	11.4
Fifth	4,82	8.70	9.15	8,59	8.52	8.23	8.8	8.4
First to Fifth	77.17				78.94	79.24	78.8	81.1
Sixth and over, and unstated	22.83	22.65	21.96	21.81	21.06	20.76	21.2	18.9
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE XXVII.

Showing the Ages of the Fathers and Mothers of Children born in 1900.

						A	GES O	г Мот	HERS.						
Ages															·ė.
OF FATHERS.	14 years.	15 years.	16 years.	17 years.	18 years.	19 years.	20-25 years.	25-30 years.	30-35 years.	35 40 years.	40-45 years,	45-50 years.	50 55 years.	Unstated age.	No. of Fathers.
17 years					1										1
18 years		1		3	1	3	3								11
19 years			0	1	4	4	7	4							1):)
20-25 years	1	1	9	26	61	87	820	165	18	7	1		1		1,200
25-30 years		2	5	21	39	52	1,089	1,399	264	30	3	1			2,905
80-35 years		1		4	9	11	339	1,164	1,171	177	15	1			2,892
35-40 years				1	2	5	113	423	761	801	81	7			2,197
40-45 years				1	3	1	29	94	241	485	277	9			1.140
45-50 years						1	3	19	50	114	155	27			399
50-55 years							3	10	19	11	55	12			140
55-60 years							2	7	1	21	6	g.	2		18
60-65 years							2	2	3	3	s	1			19
65-70 years							,	1			1				5
Unstated	2	1	s	9	-4	11	31	6	1					32	108
No. of Mothers	3	6	21	66	127	178	2,441	3,291	2,529	1,709	605	67	3	82	11,084

The nativity of the mothers under 19 years was as follows:

Of the three at 14 years, 2 were American, and 1 was Portuguese. The six at 15 years were American.

Of the twenty-four at 16 years, 21 were American, 1 Canadian, and 2 Italian.

Of the sixty-six at 17 years, 39 were American, 1 was Belgian, 8 Canadian, 12 Italian, 2 Portugues, 1 Spanish, and 3 West Indian.

Of the one hundred and twenty-seven at 18 years, 100 were American, 19 Canadian, 1 English, 6 Italian, and 1 Portuguese.

The 11,084 children were divided as follows, to mothers of different age periods:

Number of	Per
Mothers	cent.
Under twenty years	3.64
Twenty, and under twenty-five 2,411	22.02
Twenty-five, and under thirty 3.294	29.72
Thirty, and under thirty-five	22.82
Thirty-five, and under forty	15.42
Forty, and under forty-five 605	5.46
Forty-five and over 70	63
Unstated age	
T gardengene	
Total	100.00

#### Plurality Births.

The general statistics in relation to plural births, in Rhode Island, may be found on page 8, Table III.

There were one hundred and twenty-seven cases during the year, one hundred and twenty-four of which were twins and three were triplets, thus making the number of two hundred and fifty-seven children.

Of the 257 children of plural birth, 130 were males and 127 were females.

The cases occurred in the different divisions of the State as follows:

Bristol county, 5; Kent county, 14; Newport city, 7; Providence county towns, 47\*; Providence city, 49; Washington county, 5.

The following exhibit will show the parentage of children of plural birth in Rhode Island, in 1900, and number of each:

<sup>\*</sup> Including Central Falls, Pawtucket, and Woonsocket.

Parents	s both	native	Americans	32
Parents	both	born iı	ı Australia	1
4.6	**	6.6	Austria	1
**	6.6		British America.	3
4.5	* 6	4.	Canada (French)	23
**		**	England	6
٠.		**	Ireland	11
	**	b to	Italy	11
	**	4.4	Portugal	2
44		* 6	Russia	5
	**	**	Scotland	1
**	**	**	Sweden	3
		4.4	Syria	1
Americ	an fat	her and	l British-American mother	3
Americ	an fat	her nnd	l English mother	3
America	an fat	her and	I Irish mother	2
Belglan	fathe	r and E	British-American mother	1
British-	Ameri	can fat	ther and American mother	1
English	fathe	r and A	American mother	2
			rish mother	3
			ther and American mother	7
			erican mother	3
			erman mother	1
			ritish-American mother	1
Total bi	irths.			102
1 Out 6	ii citor,			1.00
Total el	ildre	1		050
1004101	marei	4		394
m.		A1		
follow		ontus	s in which the plurality births occurred were	as
10110 V	s:			
January	,	5	April 9 July	1~
Februar				
March.			•	
			December	
First Qı	arter	27	Second Quarter31 Third Quarter36 Fourth Quarter	.33
	First l	nulf of	year58 Second half of year69	
		m.	otnl	
		1 (		

The general statistics of births, and number of *cases* reported in Rhode Island during a period of forty-seven years, that is, from 1854 to 1900, inclusive, are as follows:

307,904 cases of single birthsg	iving 3	307,904 children.
3,266 cases of twin birthsg	iving	6,532 children.
35 cases of triple birthsg	iving	105 chlldren.
1 case of quadruple births	giving	4 children.

Of the whole number of cases of child-birth (311,206) during the forty-seven years, one in 95.2 produced twins, one in 8,891 produced triplets, and one in 311,206 produced quadruplets.

Of the whole number of children born during the same period (314,545), ascertained from the reports, one in every 48.2 was a twin; one in every 2,996 was a triplet.

Of the 3,302 cases of plurality births which have occurred in the State during the last forty-seven years, there were 1,219 cases in which both parents were natives; 1,616 cases in which both parents were foreign; 458 cases in which the parents were mixed, that is, one native and one foreign parent; and 9 in which the parentage was not stated.

The whole number of children born in plurality cases, during the forty-seven years, was 6,641; of whom 3,351 were males, and 3,286 were females; the sex of the remaining four was not given.

#### STILL-BORN.

The whole number of still-born children reported in Rhode Island, for the year 1900, was 374; this number is 15 less than for the year 1899.

The following are the numbers reported from the different divisions of the State:

Bristol County
Kent County
Newport County Towns 5
Newport City
Providence County Towns
Central Falls
Pawtucket
Providence City
Woonsocket
Washington County 10
•
Whole State,

The following table will give the number in each town from which still-births were reported, with the sex, parentage, and color:

## TABLE XXVIII.

Still-Born, 1900; Locality, Number, Sex, Parentage, and Color.

		SE	х.	PARES	TAGE.	Cor	Color.		
TOWNS AND DIVISIONS OF THE STATE.	Total.	Males.	Females.	Native.	Foreign.	White.	Colored.		
Barrington	1	1			1	1			
Bristol	4	1	3	2	5	4			
Warren	5	5	3		5	5			
Bristol ('ounty	10	4	6	2	8	10			
Coventry	5	2	3	2	3	5			
East Greenwich	1	1			1	1			
Warwick	15	8	ĩ	6	9	15			
KENT COUNTY	21	11	10	8	13	21			
Jamestown	2	1	1	1	1	2			
NEWPORT CITY	23	11	9	14	9	20	3		
Portsmouth	1		1	1		1			
Tiverton	. 5	1	1		2	2			
Newport County	28	16	12	16	12	25	3		
Burrillville	3	1	2	1	2	3			
CENTRAL FALLS	20	15	5	2	18	20			
Cranston	5	3	2		5	5			
Cumberland	8	5	3	2	6	8			
East Providence	4	3	1	3	1	4			
Johnston	5	2	3		5	5 ,			
Lincoln	2	1	1	1	1	2			
North Providence	1		1		1	1			
North Smithfield	3	2	1	2	1	3			
PAWTUCKET	23	13	10	14	9	23			
PROVIDENCE CITY	207	119	85	90	117	197	10		
Scituate	5	2			2	2			
Smithfield	1	1			1	1			
WOONSOCKET	21	18	3	7	14	21			
PROVIDENCE COUNTY	305	185	120	122	183	295	10		
11opkinton	2	1	1	2		2			
South Kingstown	3	2	1	3		3			
Westerly	5	÷)	3	3	2	1	1		
WASHINGTON COUNTY	10	5	5	8	2	9	1		
Total	374	221	153	156	215	360	14		

#### SUMMARY OF SEX OF STILL-BORN.

The following Table shows the number and sex of the still-born children whose births were reported in Rhode Island during each of the last five years, and also of a period of forty-seven years, extending from January 1, 1854, to December 31, 1900.

#### TABLE XXIX.

SEX.	1900.	1899.	1898.	1897.	1896.	Jan. 1, 1854, to Dec. 31, 1900.
Males	221	210	240	258	244	6,901
Females	153	179	173	165	180	4,923
Total	37-1	389	413	423	424	11,824

The average proportions of the sexes of the still-born, for the period of forty-seven years, were as follows: In every 100 still-births there were about 58 males and 42 females.

Season of Still-Births.—During 1900 the proportions in relation to season, by percentage, were as follows:

1900.	1900.
First Quarter	Third Quarter
Second Quarter	Fourth Quarter 27.81
	<del></del>
Per cent, first half of the year 47.33	Last half of the year 52.67

The births of the still-born in the different months of the year, although somewhat variable in number, do not, as a rule, show great discrepancies.

#### Parentage of the Still-Born.

Of the 374 still-born children reported in 1900 there were 156 of native and 218 of foreign parentage, reckoned by the nativity of the fathers, that is, the father's name given; and 152 of native and 222 of foreign, reckoned by the nativity of the mothers, name of father given or not given.

## ILLEGITIMATES.

In the following Table will be found the whole number of illegitimate births returned during 1900, with the sex, color, parentage, and locality of birth:

TABLE XXX.

Illegitimates, 1900.

	iber.	S1	EX.	COI	LOR.	PAREN	TAGE.						
TOWNS.	Whole Number.	Males.	Females,	White.	Black.	Native.	Foreign.						
Barrington	1	1		1		1							
Bristol	4	:2	2	4		4							
Warren	2	1	1	2		1	1						
Warwick	3		3	3		1	2						
NEWPORT CITY	14	5	9	8	6	11	3						
New Shorcham	2	1	1	2		2							
Burrillville	1	1		1		1							
CENTRAL FALLS	3	1	2	3		3							
Cranston	10	5	5	7	3	4	6						
East Providence	1	1		1		1							
Glocester	1		1	1		1							
Johnston	1	1		1			1						
Lincoln	2		2	2			2						
PAWTUCKET	4	3	1	4		1	3						
PROVIDENCE CITY	83	46	37	69	14	59	24						
Scituate	1	1		1		1							
Woonsocket	10	3	7	10		7	3						
Hopkinton	1	1		1		1							
South Kingstown	5	1	4	4	1	4	1						
WHOLE STATE	149	74	75	125	21	103	46						

There were returns, during 1900, of 149 children of illegitimate parentage. The number is 3 less than that of the previous year.

Sex.—Of the 149, there were 74 males and 75 females.

Color.—Of the 149 illegitimates born during 1900, 125, or 83.9 per cent., were white; and 24, or 16.1 per cent., were colored.

Parentage.—Of the 149, 103, or 69.1 per cent. of all, were born of native mothers; and 46, or 30.9 per cent., of foreign born mothers. The colored illegitimates were all of native parentage. There were of the 125 white illegitimates, 103 born of native mothers, and 46 of foreign mothers.

The ages of the mothers were as follows:

	No. of		No. of		No. of
Age.	Mothers.	Age.	Mothers.	Age.	Mothers.
14	3	24	11	35	1
15	2	25	8	37	1
16	7	26	7	38	2
17	9	27	5	40	2
18	7	28	3	46	1
19	14	30	4	Unknown	2
20	13	31	1		
21	11	32	3	Total	149
22	17	33	3		
23	10	34	2		

Sixty-eight of the illegitimates were born of indigent, pauper, or criminal mothers, in public, charitable, or penal institutions.

Fifty-three of these sixty-eight births occurred at the Lying-in-Hospital, in the city of Providence.

The proportion of illegitimates to the whole number of births was about one in every 74 cases, or about 13 in every 1,000.

## MARRIAGES, 1900.

The number of marriages registered in Rhode Island, during the year 1900, was 3,936. This number is 658 more than in 1898, and 503 more than in 1899.

The general statistics of marriage, in 1900, in relation to season and number, in the different divisions of the State, may be found in Table IV, on the ninth page.

The statistics in relation to the proportion to population of persons married in 1900, in each of the towns and general divisions of the State, may be found in Tables XV and XVI, on pages 132 and 135.

The following Table will present the number of marriages, and the ratio of marriage to population, in each year for a period of forty-one years, 1860 to 1900, inclusive:

#### Table XXXI.

YEARS.	Number Marriages.	Of Population, one Person Married in every	Persons Married per 1,000 of Popula- tion.	YEARS.	Number Marriages.	Of Population, one Person Married in every	Persons Married per 1.000 of Popula- tion
1860	1,748	50.0	20.0	1882	2,634	52.5	19.0
1861	1,533	56.8	17.6	1883	2,611	54.4	18.3
1862	1,450	61.1	15.1	1884	2,558	58.1	17.2
1863	1,618	54.7	18.3	1885	2,488	61.3	16.3
1864	1,844	50.1	19.9	1886	2,750	56.5	17.7
1865	1,896	48.7	20.5	1887	2,839	55.8	18.0
1866	2,318	39.9	25.1	1888	3,022	53.5	18.7
1867	2,344	39.8	25.1	1889	3,029	57.8	17.3
1868	2,285	40.5	24.8	1890	3,195	54 1	18.4
1869	2,289	47.5	21.1	1891	3,320	53.5	18.5
1870	2,362	46.0	21.7	1892	3,502	52.4	19.1
1871	2,336	46.5	21.5	1893	3,544	53.6	18.7
1872	2,537	42.9	23.2	1894	3,271	57.4	17.4
1873	2,630	41.3	24.2	1895	3,497	55.0	18.2
1874	2,541	50.8	19.6	1896	3,327	59.2	17.0
1875	2,485	52.0	19.2	1897	3,137	64.3	15.6
1876	2,253	57.3	17.5	1898	3,278	63.2	15.8
1877	2,282	56.6	17.7	1899	3,433	61.6	16.2
1878	2,324	55.7	17.9	1900	3,936	54.4	18.4
1879	2,396	57.8	17.5				
1880	2,769	49.9	20.0	Annual ave	rage	53.9	18.4
1881	2,750	50.3	19.9	,			

### Season.

The following Table will show the number and percentage of marriages in Rhode Island, in each month and each quarter of the year 1900, together with the aggregate number and percentage in each quarter for forty-seven years, viz., from 1854 to 1900, inclusive:

#### TABLE XXXII.

MONTHS.	Number of marriages, each month, 1900.	Number of Mar- riages each Quar- ter, 1900.	Percentage of each Quarter to total Marriages, 1900.	Number of Mar- riages per Quarter, 47 yrs., 1854-1900.	Percentuge each Quarter, 47 years.
January	326 } 308 } 129 }	1st Quarter763	19.38	1st Quarter24.913	21.31
April	331 } 255 } 527 }	2d Quarter1,113	28.28	2d Quarter30,366	25.95
July August September	277 ) 281 } 394 }	3d Quarter952	24.19	3d Quarter27,381	23.43
October  November  December	409   434 } 265	4th Quarter1,108	28.15	4th Quarter34,274	29.31
Total		3,936	100.00	* 116,954	100.00

The largest number of marriages in any one month, during 1900, occurred in the month of June. For thirty-eight years previous to 1892 the greatest number of marriages was in the month of November. Since then, with the exception of in 1895 and 1899, the greatest number of marriages has been in the month of June. The rule has been as follows: the largest proportion in the last quarter; the next largest in the second quarter; followed by the third quarter; and, finally, the first quarter having the smallest proportion of any. In 1893, 1894, 1896, and 1900, the largest proportion was in the second quarter.

During 1900 the proportions in the different quarters, from the largest to the smallest, were as follows: second quarter, 28.28 per cent.; fourth quarter, 28.15 per cent.; third quarter, 24.19 per cent.; first quarter, 19.38 per cent.

#### NATIVITY OF PERSONS MARRIED.

The following Table shows the *number* of marriages, according to the nativities of the parties, for each of the last four years, and

<sup>\*</sup> Including 20, date not given, recorded previous to 1860.

also for the aggregate of twenty-five years, from 1858 to 1882, inclusive; of five years, from 1883 to 1887, inclusive; of five years, from 1888 to 1892, inclusive; and for five years, from 1893 to 1897, inclusive:

TARLE	IIIXXX	
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BIRTH-PLACE.	1900.	1899.	1898.	1897.	5 years, 1893 to 1897. Total.	5 years, 1888 to 1892. Total.	5 years, 1883 to 1887. Total,	25 years, 1858 to 1882. Total.
United States	1,800	1,658	1,500	1,494	7,846	7,813	7,157	33,553
Foreign countries	1,156	972	991	942	5,318	4,973	3,601	13,753
Native groom, foreign bride	499	411	402	344	1,785	1,637	1,323	3,488
Foreign groom, native bride	481	392	363	357	1,827	1,645	1,165	3,876
Not stated	· · · · · ·							64
Total	3,936	3,433	3,278	3,137	16,776	16,068	13,246	54,734

It will be understood that in the above enumerations the *parent* nativity of the persons married is not considered, but the country where born.

Parties born in the United States, although children of foreign born parents, are reckoned as natives.

In the following Table are given the *percentuges* by birth, of native, foreign, and mixed marriages, in each of the last four years, and in the aggregate of five years, 1893 to 1897, inclusive; of five years, 1888 to 1892, inclusive; of five years, 1883 to 1887, inclusive; and twenty-five years, 1858 to 1882, inclusive:

TABLE XXXIV.

BIRTH-PLACE.	1900,	1899.	1898.	1897.	5 years, 1893-1897.	5 years, 1888-1892.	5 years, 1883-1887.	25 years, 1858-1882.
United States  Foreign countries  Mixed nativity	29.37	48.30 28.31 23.39	46.43 30,23 23.31	47.62 30.03 22.35	46.81 31.65 21.54	48.62 30.95 20.43	54.02 27.19 18.79	61.30 25.13 13.57
Total	100,00	100.00	100.00	100.00	100,00	100.00	100.00	100.00

It will be of some interest to notice that by the exhibit of the two preceding Tables it is shown that, although the marriages of the native born (whether the issue of foreign born parents or natives) have, as a rule, increased in numbers, they have also steadily decreased in proportion, with two or three exceptional years, that is, to the whole number of marriages; while the marriages of the class of the exclusively foreign born have been, for the past thirty years, gradually increasing in proportion.

Denominational.—The 3,936 marriages in 1900 were performed by clergymen of various denominations, or by civil authority, as follows:

#### DENOMINATIONAL.

Roman Catholic	1,696	Unitarian	15
Baptist	600	Advent Christian	
Protestant Episcopal	143	Primitive Methodist	8
Congregational	362	Armeniar	8
Methodist	268	Independent	6
Free Baptist	118	Latter Day Saints	6
Universalist	78	Evangelical	4
Lutheran	68	Second Advent	4
Justices Supreme Court	48	Friends' Ceremony	2
Christian	-14	Swedenborgian	2
Hebrew	10	Penticostal	1
Presbyterian	38	Denomination not stated	6
Advent	24		
Seventh Day Baptist	23	Total	3,936
United Presbyterian	IS		

### Ages of the Married.

In the following Table the varying ages of persons married during 1900 are presented:

TABLE XXXV.

	AGES OF BRIDES.												
AGES OF GROOMS.	Under 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	Number of Grooms.	
Under 20	59	31	3									93	
20 to 25	390	778	130	23	4							1,325	
25 to 30	148	578	431	80	17	2	2		1			1,259	
30 to 35	28	186	198	119	34	<b>1</b> 5	1					581	
35 to 40	7	53	83	69	42	12	4	1				271	
40 to 45	3	20	28	27	34	21	10	3				146	
45 to 50		5	12	14	24	25	11	3	3			97	
50 to 55		3	6	10	<b>1</b> 3	8	17	7	4			68	
55 to 60		2	4	6	5	7	8	10	6	1		49	
60 to 65				2		1	4	6	3	$\frac{1}{2}$		18	
65 to 70		1		3		3	1	4	6	2	2	22	
70 to 75	1		1	1				1	1	1		6	
75 to 80								• •	1			1	
Number of Brides	636	1,657	896	354	173	94	58	35	25	6	2	3,936	

The extreme discrepancies in the ages of some couples married in 1900 were not so frequent as in some previous years.

The same results in 1900, in relation to numbers in the different age periods, may be presented in a different and perhaps clearer way as follows:

### TABLE XXXVI.

1900.	Under 20.	20 to 25.	25 to 30.	80 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.
Males	93	1,325	1,259	581	271	146	97	68	49	18	55	6	1
Females	636	1,657	896	354	173	94	58	35	25	6	2		
							_	-	-				
Total persons	729	2,982	2,155	935	444	240	155	103	71	24	24	6	1

The whole number of persons in each division of ages, of both sexes, married in Rhode Island in each of the last thirty-five years, that is, from 1866 to 1900, inclusive, is presented in the following Table:

## TABLE XXXVII.

1867.											1				-		=
1866	YEARS.	Under 20.	to	5	to	to	to	to	to	to	to	to	5	to	to	to	Not stated.
1868.   644   1,833   1,650   432   219   133   82   61   30   20   11   8   4   .	1866	693	1.931	1,025	419	213	127	81	59	25	21	12	1				23
1869	1867	696	1,886	1,104	416	211	148	91	48	37	18	18	5	3	1		9
1870	1868	644	1,835	1,050	432	219	133	82	61	30	29	11	8	4			32
1871.	1869	642	1,814	1,051	468	227	134	79	46	35	15	11	2	3	2		49
1872	1870	744	1,883	1,084	415	216	159	86	64	26	24	12	3	2			6
1873.       762       2,177       1,156       507       253       140       87       08       35       24       12       6       6        2         1874.       770       1,992       1,179       459       268       159       101       52       36       39       8       9       1        9         1875.       681       2,058       1,108       475       252       150       101       60       32       29       13       4       1        6         1876.       691       1,741       1,041       450       224       154       80       53       27       19       12       1       2        6         1877.       631       1,745       1,118       459       244       125       92       52       46       14       15       11       2       1        15         1878.       618       1,832       1,123       441       259       162       74       49       39       20       0       17       2       4        2       2       1       1        1	1871	697	1,914	1,118	392	228	115	73	56	35	22	6	7	3			6
1874.       770       1,992       1,179       459       268       159       101       52       36       39       8       9       1       .        .        .       .       .       .       .       .       .       .       .       .       . <td< td=""><td>1872</td><td>786</td><td>2,073</td><td>1,182</td><td>434</td><td>237</td><td>131</td><td>81</td><td>61</td><td>43</td><td>21</td><td>13</td><td>6</td><td>1</td><td></td><td></td><td>5</td></td<>	1872	786	2,073	1,182	434	237	131	81	61	43	21	13	6	1			5
1875       681       2,058       1,108       475       252       150       101       60       32       29       13       4       1        6         1876       691       1,741       1,041       450       224       154       80       53       27       19       12       1       2        6         1877       631       1,745       1,118       459       244       125       92       52       46       14       15       11       2       1        6         1878       618       1,892       1,126       481       272       123       78       56       39       26       18       9       2       2       1       1         1880       638       2,301       1,262       556       329       163       91       65       33       27       15       3       3       1        188         1881       590       2,208       1,410       547       298       187       107       54       34       31       16       5       1       1        188       188       2,125       1,377 <t< td=""><td>1873</td><td>762</td><td>2,177</td><td>1,156</td><td>507</td><td>258</td><td>140</td><td>87</td><td>68</td><td>35</td><td>24</td><td>12</td><td>6</td><td>6</td><td></td><td></td><td>27</td></t<>	1873	762	2,177	1,156	507	258	140	87	68	35	24	12	6	6			27
1876.       691       1,741       1,041       450       224       154       80       53       27       19       12       1       2        9         1877.       631       1,745       1,118       459       244       125       92       52       46       14       15       11       2       1        9         1878.       618       1,832       1,123       441       259       162       74       49       39       20       17       2       4        8         1879.       639       1,869       1,156       481       272       123       78       56       39       26       18       9       2       2       1       1         1880.       688       2,301       1,410       547       298       187       107       54       34       31       16       5       1       1         188         1881.       590       2,208       1,410       486       319       183       115       73       31       16       5       1       1         188       188       182	1874	770	1,992	1,179	459	268	159	101	52	36	39	8	9	1			9
1877.       631       1,745       1,118       450       244       125       92       52       46       14       15       11       2       1        9         1878.       618       1,832       1,123       441       259       162       74       49       39       20       17       2       4        8         1879.       639       1,879       1,156       481       272       123       78       56       30       26       18       9       2       2       1       1         1880.       688       2,301       1,262       556       329       163       91       65       33       27       15       3       3       1        1881       590       2,208       1,410       547       298       187       107       54       34       31       16       5       1       1        1882       498       2,125       1,377       563       301       161       102       57       36       27       11       5       3       2         1883       155       498       1,297       1,486       319	1875	681	2,058	1,108	475	252	150	101	60	35	29	13	4	1			6
1878.       618       1,832       1,123       441       259       162       74       49       30       20       17       2       4        8         1879.       639       1,879       1,156       481       272       123       78       56       30       26       18       9       2       2       1       1         1880.       688       2,301       1,262       556       329       163       91       65       33       27       15       3       3       1        1881.       599       2,298       1,410       547       298       187       107       54       34       31       16       5       1       1        1882.       408       2,125       1,377       563       301       161       102       57       36       27       11       5       3       2	1876	691	1,741	1,041	450	224	154	80	53	27	19	12	1	2			9
1879       639       1,879       1,156       481       272       123       78       56       30       26       18       9       2       2       1       1         1880       688       2,901       1,262       556       329       163       91       65       33       27       15       3       3       1          1881       599       2,208       1,410       547       298       187       107       54       34       31       16       5       1       1        1882       498       2,125       1,377       563       301       161       102       57       36       27       11       5       3       2           1883       497       2,108       1,370       486       319       183       115       73       31       20       14       3       2       1                              .	1877	631	1,745	1,118	459	244	125	92	52	46	14	15	11	2	1		9
1880.       688       2,301       1,262       556       329       163       91       65       33       27       15       3       3       1          1881.       590       2,208       1,410       547       298       187       107       54       34       31       16       5       1       1        3         1882.       498       2,125       1,377       563       301       161       102       57       36       27       11       5       3       2          1883.       497       2,108       1,370       486       319       183       115       73       31       20       14       3       2       1          1884.       484       2,027       1,289       569       307       152       114       64       48       30       23       6       3         1885       438       1,973       1,296       540       309       163       102       57       45       27       13       7       3        1       9         1885.       582       2,427       1,608       607<	1878	618	1,832	1,123	441	259	162	74	49	39	50	17	2	4			8
1881.       599       2.208       1,410       547       298       187       107       54       34       31       16       5       1       1       .       9         1882.       498       2,125       1,377       563       301       161       102       57       36       27       11       5       3       2       .       .         1883.       497       2,108       1,370       486       319       183       115       73       31       20       14       3       2       1       .       .         1884.       484       2,027       1,289       569       307       152       114       64       48       30       23       6       3       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .        .       .       .       .       .       .       .       .       .       .       .       .       .       .       .        .       .       .       .       .       .       .       .       .       .       . <td< td=""><td>1879</td><td>639</td><td>1,879</td><td>1,156</td><td>481</td><td>272</td><td>123</td><td>78</td><td>56</td><td>39</td><td>26</td><td>18</td><td>9</td><td>2</td><td>2</td><td>1</td><td>11</td></td<>	1879	639	1,879	1,156	481	272	123	78	56	39	26	18	9	2	2	1	11
1882.       498       2,125       1,377       563       301       161       102       57       36       27       11       5       3       2          1883.       497       2,108       1,370       486       319       183       115       73       31       20       14       3       2       1          1884.       484       2,027       1,289       569       307       152       114       64       48       30       23       6       3           1885.       438       1,973       1,289       540       309       163       102       57       45       27       13       7       3        1         1886.       505       2,133       1,552       603       283       174       103       73       21       26       18       5       1         1886.       505       2,427       1,608       640       330       207       105       60       36       17       23       7       2         1889.       543       2,463       1,492       712       379       182	1880	688	2,301	1,262	556	359	163	91	65	33	27	15	3	3	1		1
1883.       497       2,108       1,370       486       319       183       115       73       31       20       14       3       2       1 </td <td>1881</td> <td>599</td> <td>2.208</td> <td>1,410</td> <td>547</td> <td>298</td> <td>187</td> <td>107</td> <td>54</td> <td>34</td> <td>31</td> <td>16</td> <td>5</td> <td>1</td> <td>1</td> <td></td> <td>3</td>	1881	599	2.208	1,410	547	298	187	107	54	34	31	16	5	1	1		3
1884.       484       2,027       1,289       569       307       152       114       64       48       30       23       6       3	1882	498	2,125	1,377	563	301	161	102	57	36	27	11	5	3	2		
1885.       438       1,973       1,296       540       309       163       102       57       45       27       13       7       3        1       9         1886.       505       2,133       1,552       603       283       174       103       73       24       26       18       5       1	1883	497	2,108	1,370	486	319	183	115	73	31	20	14	3	2	1		
1886.       505       2,133       1,552       603       283       174       103       73       24       26       18       5       1	1884	484	2,027	1,289	569	307	152	114	64	48	30	23	6	3			
1887.       501       2,308       1,552       607       294       162       114       49       39       23       19       7       3	1885	438	1,973	1,296	540	309	163	102	57	45	27	13	7	3		1	2
1888.       582       2,427       1,668       640       330       207       105       60       36       17       23       7       2	1886	505	2,133	1,552	603	283	174	103	73	24	56	18	5	1			
1889.       543       2,463       1,492       712       379       182       121       66       45       8       16       9        2   <	1887	501	2,308	1.552	607	294	162	114	-19	39	23	19	7	3			
1890.       596       2,693       1,632       673       320       206       102       69       41       29       20       7       2	1888	582	2,427	1,608	640	330	207	105	60	36	17	23	7	2			
1891.       685       3,141       1,442       635       315       158       115       64       35       21       17       6       1       1        1892.       668       3,011       1,729       782       389       201       122       60       35       30       14       4       8         6         1893.       676       2,777       1,869       776       436       287       133       79       47       39       9       8        1       1          1894.       618       2,760       1,613       680       375       183       150       74       39       29       17       3       5       1         1       1         1       1           1       1           1       1           1       1	1889	543	2,463	1,492	712	379	182	121	66	45	8	16	9		2		
1892.       668       3,611       1,729       732       389       201       122       60       35       30       14       4       3        6         1893.       676       2,777       1,869       776       436       287       133       79       47       39       9       8        1       1          1894.       618       2,760       1,613       680       375       183       150       74       39       29       17       3       5       1          1895.       607       2,763       1,887       767       417       227       142       83       49       22       12       13       4       1          1896.       617       2,647       1,841       713       352       204       121       61       15       21       18       5       3         1897       542       2,490       1,746       659       359       184       125       81       38       22       15       9       3       1         1898       579       2,639       1,795       675	1890	596	2,693	1,682	673	320	500	102	69	41	29	20	7	2			
1893       676       2,777       1,869       776       136       287       133       79       47       39       9       8        1       1          1894       613       2,760       1,613       680       375       183       150       74       39       29       17       3       5       1          1895       607       2,763       1,887       767       417       227       142       83       49       22       12       13       4       1          1896       617       2,617       1,811       713       352       204       124       61       15       24       18       5       3           1897       542       2,490       1,746       659       359       184       125       81       38       22       15       9       3       1          1898       579       2,639       1,795       675       394       187       127       82       38       20       10       7       3           1899       587       2,720       1,8	1891	685	3,141	1,442	685	315	158	115	64	35	21	17	6	1	1		4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1892	668	3,011	1,729	732	389	201	122	60	35	30	14	4	8			6
1895.     607     2,763     1,887     767     417     227     142     83     49     22     12     13     4     1        1896.     617     2,617     1,811     713     852     204     121     61     45     24     18     5     3        1897.     542     2,490     1,716     659     359     184     125     81     38     22     15     9     3     1        1898.     579     2,639     1,795     675     394     187     127     82     38     20     10     7     3        1899.     587     2,720     1,871     810     361     201     149     59     54     31     11     8     3     1	1893	676	2,777	1,869	776	436	237	133	79	47	39	9	8		1	1	
1896.     617     2,617     1,811     713     352     201     121     61     15     24     18     5     3         1897.     542     2,490     1,716     659     359     184     125     81     38     22     15     9     3     1        1898.     570     2,639     1,795     675     394     187     127     82     38     20     10     7     3        1899.     587     2,720     1,871     810     261     201     149     59     54     31     11     8     3     1	1894	618	2,760	1,613	680	375	183	150	74	39	59	17	3	ō	1		
1897.     542     2,490     1,746     659     359     184     125     81     38     22     15     9     3     1        1898.     579     2,639     1,795     675     394     187     127     82     38     20     10     7     3         1899.     587     2,720     1,871     810     361     201     149     59     54     31     11     8     3     1	1895	607	2,763	1,887	767	417	227	142	83	-19	22	15	13	4	1		
1898	1896	617	2,617	1,841	713	852	201	121	61	15	24.	18	5	3			
1899 587 2,720 1,871 810 261 201 149 59 54 31 11 8 3 1	1897	542	2, 190	1,746	659	359	184	125	81	88	22	15	9	3	1		
	1898	579	2,639	1,795	675	394	187	127	82	38	20	10	7	3			
1900	1899	587	2,720	1,871	810	361	201	149	59	54	31	11	8	3	1		
	1900	729	2,982	2,155	985	444	240	155	103	74	21	24	6	1			• • • • •

In the following Table will be found the number and proportion of the persons married under 20 years of age, both sexes, in nine periods of five years each, from 1856 to 1900, inclusive; for the whole period of forty-five years, and in 1897, 1898, 1899, and 1900.

## TABLE XXXVIII.

5-YEAR PERIODS.	Total number of persons married.	Persons married under 20.	Percentage under
1856-1860	15,838	3.294	20.79
1861-1865	16.682	2,406	14.42
1866-1870	23,196	3,419	14.71
1871-1875	25.058	3,696	14.75
1876–1880	24,048	3,267	13.59
1881–1885	26,082	2,516	9.65
1886-1890	29,670	2,727	9.19
1891-1895	34,268	3,249	9.18
896-1900	34,226	3,054	8.92
15 years, 1856-1900	229,068	27,628	12.06
897	6,274	542	8.64
898	6,556	579	8.83
899	6,866	587	8.69
1900.	7,876	729	9.26
Per cent., first fifteen years Per cent., second fifteen years Per cent., last four years			12.60

## Proportion to Sex.

Table exhibiting the percentages of grooms in each division of ages, in each of the last forty-one years:

TABLE XXXIX.

	YEARS.	Under 20.	20 to 25.	25 to 30.	30 to 40.	40 to 50.	50 and over.	Total.		
ſ	1860,	5.0	42.8	26.9	16.3	5.7	3.3	100.0		
ļ	1861	4.6	44.5	25.4	15.5	5.8	4.2	100.0		
1	1862	4.2	37.8	27.9	18.3	5.9	5.9	100.0		
	1863	3.5	38.0	29.6	17.2	5.8	5.9	100.0		
-	1864	4.3	38.8	27.3	17.9	7.4	4.3	100.0		
	1865	3.5	37.0	28.4	18.9	7.5	4.7	100.0		
	1866	5.3	40.9	27.0	16.4	6.3	4.1	100.0		
	1867	4.3	40.1	27.9	16.8	6.8	4.1	100.0		
	1868	4.1	39.9	28.2	17.1	6.1	4.6	100.0		
	1869	4.3	39.6	27.7	18.5	6.1	3.8	100.0		
	1870	4.8	40.4	28.1	16.0	6.4	4.3	100.0		
	1871	5.3	40.1	28.9	16.5	4.9	4.3	100.0		
	1872	4.3	41.3	28.2	16.6	5.2	4.4	100.0		
	1873	3.8	42.4	26.7	17.0	6.0	4.1	100.0		
	1874	4.1	40.4	27.2	17.5	6.4	4.4	100.0		
	1875	3.5	40.9	27.8	17.6	6.1	4.2	100.0		
	1876	5.1	37.5	28.6	17.9	5.6	4.3	100.0		
	1877	4.3	36.0	30.2	18.7	5.9	6.9	100.0		
ם	1878	3.9	38.5	29.0	18.0	6,3	4.3	100.0		
CWCOUP	1879	3.9	37.8	28.8	19.3	5.4	4.8	100.		
į	1880	3.6	38.9	27.5	19.9	5.8	4.3	100.		
2	1881	2.8	37.2	29.7	19.5	6.8	4.0	100.		
1	1882	2.2	36.0	31.4	20.0	6.1	4.8	100.		
9	1883	2.9	36.0	31.7	17.7	7.2	4.3	100.		
	1884	2.5	36.2	29.1	21.1	6.2	5.0	100.		
	1885	2.6	34.7	30.2	20.9	6.8	4.8	100.		
	1886	2.5	35.2	81.9	19.6	6.8	4.0	100.		
	1887	1.7	37.1	31.6	19.6	6.2	3.8	100.		
	1888	2.8	36.1	31.1	19.8	6.5	3.7	100.		
	1889	2.3	37.6	27.8	21.3	6.6	4.4	100.		
	1890	3.3	36.9	30.8	18.9	6.1	4.0	100.		
	1891,	3.2	41.7	26.4	17.9	5.2	3.3	100.		
	1892	2.8	40.1	29.3	19.0	6.1	3.2	100.		
	1893	2.9	35.8	80.7	21.0	6.8	3.8	100.		
	1894	3.0	37.4	29.3	19.9	6.8	3,6	100.		
	1895	2.2	36.0	30.6	21.0	6.8	3.9	100.		
	1896	2.1	35.5	33.2	19.6	6.1	3.5	100.		
	1897	2.3	35.5	32.6	19.3	6.3	4.0	100.		
	1898	2.4	36.4	31.8	19.8	6.1	3.5	100.		
	1899	2.3	35.0	30.9	21.6	6.6	3.6	100.0		
	1900	2.4	83.6	32.0	21.6	6.2	4.2	100.0		

Table exhibiting the percentages of BRIDES in each division of ages, in each of the last forty-one years:

TABLE XL.

	YEARS.	Under 20.	20 to 25.	25 to 30.	30 to 40.	40 to 50.	50 and over.	Total.
	1860	25.8	44.1	17.0	9.1	2.6	1.4	100.0
	1861	29.6	42.0	15.2	7.8	4.1	1.3	100.0
	1862	24.9	41.3	16.7	11.8	4.1	1.2	100.0
	1863	24.9	42.6	16.9	9.8	4.1	1.7	100.0
	1864	24.2	43.4	17.8	10.3	2.9	1.4	100.0
	1865	22.6	43.3	19.1	11.0	3.5	1.5	100.0
	1866	24.7	42.9	17.4	11.0	2.7	1.3	100.0
	1867	25.4	40.5	19.3	10.0	3.4	1.4	100.0
	1868	24.4	40.9	18.1	11.6	3.3	1.7	100.0
	1869	24.1	40.5	18.7	12.1	3.4	1.2	100.0
	1870	26.8	39.4	17.9	10.8	3.9	1.2	100.0
	1871	24.6	41.9	19.1	10.1	3.1	1.2	100.0
	1872	26.7	40.5	18.4	9.9	2.2	1.3	100.0
	1873	25.3	40.8	17.5	12.0	2.7	1.7	100.0
	1874	26.3	38.1	19.3	11.1	3.9	1.3	109.0
	1875	23.9	42.1	16.8	11.8	4.0	1.4	100.0
	1876	25.6	39.8	17.6	12.0	3.7	1.3	100.0
	1877	23.4	40.4	18.8	12.1	3.6	1.7	100.0
מ	1878	22.7	40.4	19.3	12.2	8.8	1.6	100.0
	1879	22.8	40.7	19.4	12.1	3.0	2.0	100.0
9	1880	21.1	44.2	18.0	12.0	3.3	1.4	100.0
BRID	1881	19.0	43.0	21.5	11.2	3.8	1.5	100.0
3	1883	16.7	44.8	20.9	12.6	3.9	1.1	100.0
	1883	16.2	44.2	20.6	13.2	4.3	1.5	100.0
	1884	16.4	43.0	21.3	13.2	4.2	1.9	100.0
	1885	11.9	44.6	21.8	13.2	3.8	1.7	100.0
	1886	15.8	42.4	24.5	12.5	3.3	1.5	100.0
	1887	15.9	41.1	22.8	12.1	3.5	1.6	100.0
	1888	16.4	41.3	22.1	12.4	3.7	1.1	100.0
	1889	15.1	43.7	21.5	14.7	3.4	1.6	100.0
	1890	15.4	47.3	20.4	12.0	3.6	1.3	100.0
	1891	17.4	49.9	17.0	11.4	3.1	1.2	100.0
	1892	16.8	45.9	20.1	13.0	3.1	1.1	100.0
	1893	16.2	43.0	22.0	13.3	4.1	1.4	100.0
	1894	15.7	47.0	20.0	12.3	3.4	1.6	100.0
	1895	15.2	43.0	23.4	12.8	4.3	1.3	100.0
	1896	16.4	14.1	22.1	12.4	3.8	1.2	100.0
	1897	14.9	43.9	23.1	13.2	3.5	1.1	100.0
	1898	15.3	44.1	22.0	12.9	3.4	1.4	100.0
	1899	14.5	41.3	23.6	12.5	3.6	1.2	100.0
	1900	16.2	42.1	00.7	13.4	3.9	1.7	100.0

It will be noticed in the preceding tables that the proportions of persons married of both sexes, under 20 years of age, largely decreased during the last decade.

Of grooms, the proportion, compared with the first decade, has decreased over 40 per cent., and of females over 38 per cent.

The proportion of males married, between the ages of twenty and twenty-five, has decreased over 6 per cent., and has correspondingly increased in the more advanced age periods.

The proportion of females married, between twenty and twenty-five years of age, has not varied much, while of those between twenty-five and forty there has been an increase of proportion similar to that of males.

#### NUMBER OF TIMES MARRIED.

There will be found in the following Table the number of grooms and of brides who were married for the first, second, third, etc., time in 1900.

TAH	BLE	XI	I.

	First Marriage,	Second Marriage.	Third Marriage.	Fourth Marriage.	Total.
Grooms	3,329	566	40	1	3,936
Brides	3,467	447	21	1	3,936

The proportion of *grooms* married for the first time, in 1900, was 84.6 per cent. of the whole number, and the proportion of *brides* married for the first time was 88.1 per cent.

The following Table will show not only the number of times each of the parties was married, but also the number of bachelors and widowers who married spinsters, the number who married widows of first or second widowhood, etc., and of spinsters and widows who married bachelors, and widows of the second, third, or fourth marriage, etc.:

#### TABLE XLII.

		BRI	DES.		oms.
GROOMS.	Pirst.	Second.	Third.	Fourth.	Total Grooms
First Marriage	3,122	200	7		3,329
Second Marriage	336	217	12	1	566
Third Marriage	9	29	2		40
Fourth Marriage		1			1
Total brides	3,467	447	21	1	3,936

It will be seen, by Table XLII, that 207 bachelors married widows, 7 of whom married brides that had been twice married. Of the 607 widowers who married in 1900, 345 married spinsters, and 262 married widows. Of the widows who married widowers, 14 had been twice married, and 1 three times previously.

#### Marriages of Persons of Color.

The number of marriages of persons of color in Rhode Island, in 1900, was 122. This includes six marriages in which one of the parties was white. The number and color of the individuals were, therefore, 239 persons of color and 6 persons white. Of the white persons 2 were males and 4 were females. The marriages, however, may be properly included in the above class, inasmuch as the offspring of such marriages are persons of color.

The number reported during 1900, from the different towns, was as follows, viz.:

Bristol	1
East Greenwich	
Newport ('ity	
Portsmouth	3
Tiverton	1
Central Falls	1
East Providence	
Lincoln	1
Pawtneket	5
Providence City	
Narragausett District	2
North Kingstown.	1
South Klugstown	2
Westerly	53
Total	1100
	144

#### MARRIAGES OF THE DIVORCED.

The following Table will give the towns from which returns of marriage with the facts of divorce were reported during 1900, the whole number of marriages of divorced persons, whether of one or both parties; also whether the second or third marriage of the divorced groom or bride:

TABLE XLIII.

TOWNS.	Number of Marriages.	Number of Divorced Persons Married.	Grooms.	Brides.	Second Marriage of Groom.	Third Marriage of Groom.	Second Marriage of Bride.	Third Marriage of Bride.	Fourth Marriage of Bride.
PROVIDENCE CITY	129	143	64	79	59	5	71	7	1
Bristol	1	1	1		1				
Coventry	3	3	1	2	1		2		
East Greenwich	1	1	1		1				
Warwick	6	6	2	4	2		4		
Jamestown	1	1		1			1		
NEWPORT CITY	7	9	6	3	6		3		
New Shoreham	1	2	1	1	1			1	
Portsmouth	2	2	1	1	1		1		
CENTRAL FALLS	2	2	2 .		2				
Cranston	5	5	1	4	1		4		
Cumberland	3	3	1	2	1		2		
East Providence	8	10	6	4	6		4		
Foster	1	1	1		1				
Glocester	1	1		1			1		
Johnston	1	1		1			1		
Lincoln	1	1		1			1		
PAWTUCKET	23	25	9	16	9		16		
Scituate	3	3	1	2	1		2		
Smltlifield	1	1		1			1		
Woonsocket	8	9	4	5	4		4	1	
Charlestown	1	1		1			1		
Hopkinton	2	2		2			2		
Narragansett District	1	1	1		1				
North Kingstown	2	2		2			2		
South Kingstown	4	4	2	2	2		2		
Westerly	3	3	22	1	2		1		
Total	231	243	107	186	102	5	126	9	1

There were 221 marriages, in 1900, in which one or both of the parties had been divorced.

The proportion of the *number of marriages* of which one or both of the parties had been divorced, to the whole number of marriages, was about one in every 18, or 5.6 per cent.

But the proportion of divorced *persons* married during 1900, to the whole number of persons married in the same year, was about one in every 32, or 3.1 per cent., or 31 in every 1,000.

The number of divorced persons married, in 1900, was thirty-one more than in the previous year.

These 221 marriages of divorced persons were performed by clergymen of the different denominations, or by civil authority, as follows:

Baptist	Advent 2
Congregational	Presbyterian 2
Methodist	Advent Christian 2
Free Baptist 16	Primitive Methodsit 2
Universalist	Independent 2
Christian 7	Unitarian 1
Protestant Episcopal 6	Hebrew 1
Justices of Supreme Court 7	United Presbyterian 1
Roman Catholic 6	Latter Day Saints
Lutheran 4	Second Advent 1

Marriage and Education.—Of the number of persons married, in 1900, 545 signed their marriage certificates with a mark. The following will show the number of males and females who did so, and their nativity:

	Whole No.	Native.	Foreign.
Males	233		208
Females	312	35	277
		-	
Total		60	485

# DIVORCES, 1900.

According to the returns made to the Secretary of the State Board of Health (State Registrar) by the clerks of the Supreme Courts of the different counties of Rhode Island, the number of applications for divorce, during 1900, was seven hundred and fourteen (714).

The number of divorces granted, during 1900, was four hundred and sixty-six.

There were 66 more applications, during 1900, than during the preceding year, and the number of divorces granted was 54 more.

Divorces are decreed for the following seven statute causes, viz.:

- 1. Adultery.
- 2. Extreme cruelty.
- 3. Willful desertion for five years of either of the parties, or for a shorter period, in the discretion of the court.
  - 4. Continued drunkenness.
- 5. Neglect or refusal to provide necessaries (having ability) for the subsistence of a wife.
  - 6. Gross misbehavior and wickedness other than aforesaid.
  - 7. Impotency.

Divorces are also decreed, or marriages set aside, in the discretion of the court, for ascertained affinity, consanguinity, idiocy, insanity, penitentiary crimes, and bigamous or otherwise illegal marriage.

The following Table shows the number of applications for divorce, and the number granted, in 1900, in each county of the State; also the causes alleged for the applications:

#### TABLE XLIV.

	CAUSES ALLEGED.											
COUNTIES.	Number of Applications	Number Granted.	Adultery.	Extreme Cruelty.	Willful Desertion.	Continued Drunken- ness.	Neglect to Provide Necessaries, etc.	Other Gross Misbe- havior.	Vold Marriage.	Impotency.	Lived separate and apart for over 10 yrs.	Total Causes Alleged.
Bristol,	13	8	4	5.	10	2	5	4				30
Kent	25	19	5	13	8	9	18	5				58
Newport	24	15	7	4	11	2	13	9				46
Providence	622	400	88	216	247	128	386	94	1	1		1,161
Washington	30	24	4	13	21	6	18	13				75
		-	_		_			-	_			
Whole State	714	466	108	251	297	147	440	125	1	1		1,370

There were, during the year 1900, seven hundred and fourteen (714) applications for divorce, and the whole number of causes alleged was thirteen hundred and seventy (1,370). There was, therefore, an average of nearly two causes alleged in each application.

The causes alleged why divorces should be granted in the applications, during 1900, were 111 more in number than in 1899.

		Causes of Applications where Divorce was Granted.									APPLICANT.		
COUNTIES.	SEX.	Adultery.	Extreme Cruelty.	Willful Desertion.	Continued Drunk- enness.	Neglect to Provide Necessaries, etc.	Other Gross Misbe- havior.	Void Marriage.	Impotency.	Excessive use of Morphine.	Husband.	Wife.	Total.
Bristol County	Males Females	2		3		1					6		9
Kent County	Males	1	7	1	1 4	10					5	25	30
Newport County	Males	4 2	3	7	1	9	1 6				6	28	 34
Providence County	Males	15 10				189	10 22	1			102	396	498
Washington County	Males		7 10	7		13	6				14	 43	 57
Total	Males	22					14 34				133	495	628

LENGTH OF TIME MARRIED.	Bristol County.	Kent County.	Newport County.	Providence County.	Washington County.	Whole State.
Number under six months		1		8	1	10
Six months and under one year				14		14
One year and under five	1	5	5	158	7	176
Five years and under ten	5	6	4	1/14	10	169
Ten years and over	7	11	15	285	12	330
Unstated		2		13		15

Average of	years of	${\it marriage\ in}$	Bristol County 13 years, 3 months.
4.6	6.4	4.6	Kent County
6.6	4.4	44	Newport County
6.6	4.4	+4	Providence County
6.6	6.6	6.6	Washington County
4.6	6.6	44	Whole State 11 years, 11 months.

In order to show the actual number of applications, and the number of divorces granted in each of the last twenty-eight years, the following summary is presented:

		. A second	Applications
Арр	olications	Divorces refus	ed or continued
for	divorce.	granted. or	withdrawn.
1873	261	173	. 88
1874	276	242	. 34
1875	227	158	69
1876	254	196	58
1877	257	178	79
1878	258	196	62
1879	255	246	. 9
1880	347	273	74
1881	350	268	82
1882	339	271	68
1883	821	257	. 64
1884	320	266	54
1885	293	227	66
1886	336	257	79
1887	322	248	74
1888	304	224	80
1889	366	274	92
1890	327	244	83
1891	362	275	87
1892	412	296	116 .
1893	529	301	228
1894	506	280	226
1895	516	373	143
1896	526	363	163
1897	544	372	172
1898	615	400	215
1899	648	412	236
1900	714	466	248
28 years, total10	0,785	7,736	3,049

The average annual proportion of decrees of divorce granted during the last twenty-eight years, to the applications therefor, was 71.7 per cent.

During the last ten years the proportions were as follows:

Years,1891,	1892,	1893,	1894,	1895,	1896.	1897,	1898,	1899.	1900
Per cent76.0	71.8	56.9	55 . 8	72.3	69 . 0	68.4	65.0	63.6	65.8

The proportion of *divorces granted*, in 1900, to the whole number of marriages, during the same year, was *one divorce* to every eight and five-tenths marriages.

The proportion of applications for divorce to whole number of marriages, during the year, was one application to every five and five-tenths marriages.

The following Table shows the number of divorces granted in each county, and the whole State, in each of the last thirty-two years, and the proportion of marriages to each divorce granted in each year:

TABLE XLV.

	Bri: Cou	stol nty.	Ke Cou	nt nty.	New · Cou	port	Provi Cou	dence nty.	Washi Con	ngton nty.		ole ite.
YEARS.	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.
1869	10	10.6	15	12.5	6	27.7	120	13.8	11	15.5	162	14.1
1870	3	22.7	18	11.8	6	26.3	152	11.3	21	9.3	200	11.8
1871	5	16.8	11	17.9	4	49.7	123	13.3	18	11.4	161	14.5
1872	8	10.2	13	15.7	8	22.9	149	12.6	22	8.9	200	12.7
1873	6	16.2	23	9.8	8	21.9	131	14.8	6	33.7	173	15.2
1874	10	8.9	20	8.0	6	29.0	190	10.0	16	11.6	242	10.5
1875	2	50.0	18	8.8	7	23.4	120	14.9	11	20.5	158	15.7
1876	6	14.5	15	12.8	7	20.5	148	11.1	20	8.8	190	11.5
1877	7	12.0	9	16.3	7	26.0	134	12.4	21	9.9	178	12.8
1878	4	26.0	11	13.3	13	12.8	156	10.9	12	17.3	196	11.9
1879	5	18.8	19	9.0	7	24.1	195	9.1	20	9.7	246	9.7
1880	8	12.1	23	9.4	11	17.6	208	9.7	23	17.0	273	10.1
1881	6	20.1	26	7.3	10	16.9	207	10.0	19	11.0	268	10.4
1882	6	15.0	18	10.3	15	13.0	221	8.9	11	16.2	271	9.7
1883	6	15.8	15	11.5	9	21.2	214	9.2	13	13.3	257	10.2
1884	4	16.7	50	8.0	12	15.7	209	9.3	21	8.2	266	9.6
1885	3	23.0	9	18.6	17	11.2	186	10.1	12	15.0	227	11.0
1886	5	16.0	17	11.0	15	12.3	194	10.9	26	7.3	257	10.7
1887	1	75.0	23	8.0	13	13.4	187	11.8	21	7.9	248	11.4
1888	5	15.8	14	13.5	4	46.0	188	12.5	13	16.5	22.1	13.5
1889	6	12.5	27	8.3	14	11.0	211	11.2	16	10.8	274	11.1
1890	4	27.5	19	12.1	1	232.0	196	12.8	24	8.8	244	13.0
1891	10	8.4	20	11.2	17	12.6	214	11.2	14	14.3	275	12.1
1892	2	49.5	19	12.4	50	11.6	236	11.6	19	10.4	296	11.8
1893	3	38.0	10	23.8	21	9.9	235	11.5	22	8.0	301	11.8
1894	7	16.0	22	9.0	18	12.3	207	12.4	26	6.8	280	11.7
1895	8	10.9	17	9.9	11	21.3	318	8.8	19	11.2	373	9.4
1896	7	12.4	21	7.5	18	11.3	301	8.8	13	16.1	363	9.2
1897	9	9.3	20	8.5	16	12.9	306	8.1	21	9.7	372	8.4
1898	7	12.4	23	9.8	19	9.9	333	7.8	19	9.8	400	8.2
1899	6	13.5	20	11.9	18	12.0	355	7.7	13	13.0	412	8,3
1900	н	10.6	19	12.4	15	17.1	400	7.9	24	8.8	466	8.5

The ratio of divorces granted in the entire State, during 1900, to the whole number of marriages during the same year, was one divorce to every eight and five-tenths marriages, as previously stated.

During the ten years 1869 to 1878, inclusive, the ratio of divorce to number of marriages was one divorce to every thirteen; during the ten years 1879 to 1888, inclusive, the ratio was one divorce to every ten and six-tenths marriages.

The average of the last ten years was one divorce to about every nine and nine-tenths marriages.

During the thirty-two years 1869–1900 the average proportions of divorce to marriage, in the several counties and the State, have been as follows:

Bristol County One divorce to every 19.9 marriages.
Kent CountyOne divorce to every 11.5 marriages.
Newport CountyOne divorce to every 25.9 marriages.
Providence County One divorce to every 10.8 marriages.
Washington CountyOne divorce to every 12.4 marriages.
Whole StateOne divorce to every 11.3 marriages.

Table showing the Number of Marriages to every Decree of Divorce, in five of the New England States, during the twenty-four years from 1877 to 1900, inclusive.

# TABLE XLVI.

	» r:	:		:	6	تن بن
668	\ \cdots	6.7	8.6	9.7 11.2 11.9 13.0 12.3	23.1 21.4 23.4 26.8 40.9 34.3 27.8 28.2 26.4 30.0 24.5 30.6 26.9 31.8 27.1 28.5 21.8 18.6 24.2 14.7 20.5 18.7 20.2 19.3	$. 10.1 \ 10.7 \ 13.4 \ 13.9 \ 11.6 \ 12.8 \ 12.1 \ 14.9 \ 13.3 \ 14.2 \ 14.9 \ 13.8 \ 10.7 \ 13.2 \ 13.7 \ 13.2 \ 16.6 \ 15.9 \ 15.9 \ 14.5 \ 16.0 \ 15.3 \ 15.9 \ 15.9 \ 15.5 \ 15.9 $
298 1	23	6.7	80.	-0:	-1	o
97.18	4.8	4.7			.5	-0.
	27	-1	 		2	5 16
189	9.5	& .:	 	= <u>=</u> -		14
189.	F.6	4.	3.6	9.7	6.46	15.9
¥681	1.7	& .:	9.5 9.5 11.7 10.3 12.6 9.9 9.9 8.8	55	9.81	5.9
883		9.3		5.9	1.8]	— 
92 1	-\- <u>-</u>	10.4		-4-	53	2.
110	=			117	.1	_ <del>7</del> 13
0 186	0 13	:		2017	8 27	120
189	65	:	6	18.	21.	13.5
1880	11.11		8.6	19.6	26.9	10.7
888	 	:	8.1	6.9]	9.08	8.
1877 1878 1880 1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1892 1893 1894 1895 1896 1897 1899 1900	9.6 11.010.7 11.4 13.5 11.1 13.0 12.1 11.8 11.8 11.7 9.4	:	9.2 10.9 12.8 10.4 10.9 8.3 10.7 8.7 9.8	$15.014.021.020.016.017.8\overset{\circ}{16}.413.528.820.013.516.919.618.317.117.415.912.3$		4.9
861	11.	:	.0.	0.0	0.0	
25	1-6-	<u> </u>	—ë.−	$-\frac{8}{2}$	— <del>.</del> 4.30	-6:
81 4		:	$^{4}_{-10}$	5	5	9.13
188		:	10.	13.	28.	14.
1883	9.710.2		12.8	16.4	3.7.8	12.1
883		:	6.01	17.S	6. 4.	12.8
881	9.710.110.4	:	6.	0.9	-6.0	1.6
80.		:	1-	-0.0	$-\frac{8}{4}$	.91
19 18	1 - 1-		:	0.30		.415
x x		:	:	0.21	- 1 53	133
25	==	:	:	7	_ <u>5</u> i_	10.
128	12.811.9			15.0	23.1	10.1
STATES	Rhode Island	Maine	New Hampshire	Vermont	Massachusetts	Commecticut

# **DEATHS**, 1900.

The number of deaths registered in Rhode Island during 1900, according to the returns made to the State Registrar, was eight thousand, eight hundred and twenty-three (8,823).

This number is larger by 1,918 than that of the year 1898, and 1,365 larger than that of 1899.

The death rate (20.6 in every 1,000 living persons) was three higher than that of the previous year.

The following summary will show the death rates per 1,000 for each of the last five census years, in comparison with the last five years:

1880.	1885.	1890.	1895.	1900.	1896.	1897.	1898.	1899.	1900.
17.5	.17.7	.,20.7	19.6	20.6	19.1	17.6	16.7	17.6	20.6

Since 1876 the returns have been more complete than previously, and during the last ten years few deaths have occurred in the State which were not reported.

On the following page will be found the death rates, by counties, for forty years.

## TABLE XLVII.

Death rates per 1,000 living, by counties, for forty years, from 1861 to 1900, inclusive; also the average rate of each period of five years each, from 1861 to 1900, inclusive, for the whole State.

YEARS.	Bristol.	Kent.	Newport.	Providence.	Washington.	State.	STATE. ANNUAL AVERAGE OF FIVE-YEAR PERIODS, 1861-1900.
Five years, 1861–1865	17.7	15.9	18.9	17.7	12.4	17.1	17.1 per 1,000 living.
1866	19.2	14.2	17.3	16.6	11.4	16.1	
1867	17.0	15.1	15.0	16.4	10.9	15.6	
1868	15.7	13.7	14.7	17.0	10.0	15.7 }	15.6 per 1,000 living.
1869	17.9	16.7	13.2	16.0	12.8	15.6	
1870	15.5	13.5	14.1	15.5	12.0	14.9	•
1871	16.3	17.5	12.2	15.9	12.3	15.4	
1872	21.1	16.1	14.5	21.2	14.7	19.1	
1873	18.4	13.8	19.0	22.0	15.1	20.2	17.5 per 1,000 living
1874	14.7	13.2	10.8	17.7	13.7	16.3	
1875	14.9	14.9	13.5	17.5	15.5	16.7)	
1876	14.7	11.7	13.5	16.8	15.9	15.9	
1877	18.2	13.1	12.4	18.7	12.8	17.2	
1878	17.5	14.2	13.7	18.3	13.0	17.2}	16.8 per 1,000 living
1879	13.2	15.1	14.8	17.2	11.1	16.2	
1880	19.2	14.9	14.5	18.5	12.7	17.5	
1881	17.9	16.5	15.7	19.3	11.9	18.1)	
1882	16.5	15.3	17.2	19.7	11.0	18.4	
1883	17.7	14.6	17.7	20.8	9.8	19.1 }	18.0 per 1,000 living
1884	17.7	17.1	14.5	17.8	12.6	16.9	
1885	16.3	16.4	14.5	18.5	14.0	17.7	
1886	19.2	17.5	15.0	19.2	15.0	18.8)	
1887	18.2	15.5	15.1	21.1	15.5	19.8	
1888	21.3	18.4	18.0	21.0	16.0	20.4 }	19.8 per 1,000 living
1889	17.6	20.1	14.7	19.2	14.6	19.0	
1890	22.1	17.6	16.5	22.1	13.5	20.7)	
1891	20.5	18.0	20.6	18.6	12.6	19.6	
1892	20.0	20.7	20.1	20.2	15.2	20.1	
1893	19.9	19.4	17.9	19.9	12.6	19.6}	19.6 per 1,000 livlng
1894	16.5	19.8	16.9	19.1	16.4	19.1	
1895	20.9	17.4	15.9	20.1	15.0	19.6	
1896	17.9	18.8	17.0	19.2	15.8	19.1	
1897	18.6	16.7	16.2	17.6	14.7	17.6	
1898	15.0	15.6	15.5	16.7	14.5	16.7	18.3 per 1,000 living
1899	17.6	16.8	17.6	17.6	14.1	17.6	
1900	22.6	28.6	18.7	19.9	18.2	20.6	

#### SEX OF DECEDENTS.

Of the 8,823 persons whose deaths were returned during the year 1900, 4,473 were males, and 4,350 were females; the ratio standing at 102.8 males to each 100 females, or about 507 males and 493 females in every 1,000 decedents.

The following Table will show the number and proportion of males and females among the *decedents* in Rhode Island during the ten years 1853 to 1862, inclusive; also in each of the thirty-eight years from 1863 to 1900, inclusive, and for the entire period of forty-eight years:

#### TABLE XLVIII.—DEATHS.

	25.1	71 1 -	Males to
	Males.	Females. every	100 female
0 years, 1853-1862	10,930	11,269	96.9
863	1,621	1,586	
864	1,633	1,727	92.4
865	1,686	1,719	98.1
866	1,497	1,473	101.5
867	1,442	1,447	99.7
868	1,413	1,499	. 94.3
869	1,696	1,686	100.6
870	1,588	1,650	96.2
871.,	1,621	1,723	94.1
872	2,118	2.129	99.4
873	2,166	2,237	95.5
874	2,111	2,118	99.7
875	2.108	2.209	95.4
876	1.969	2.147	91.7
877	2.132	2.318	92.0
878	2,161	2.280	94.8
379	2,183	2.289	95.4
880	2.366	2.463	96.0
881	2.467	2.549	96.8
882	2.487	2.587	
883	2.627	2.655	
884	2.486	2.655	
885	2,607	2.782	
886	2.833	3,016	
887	3.177	3,163	
888	3,199	3,395	
889	3,093	3,166	
	3,501	3,433	
890		3,279	
891	8,341	3.671	
892	8,725		
898	3.789	3,651	
894	3,559	3.601	
895	3.799	3,736	
896	3.874	3,630	
897	3,587	3,523	
898	8,554	9.351	
899	3,725	3,733	
000000	4,478	4,350	102.8
8 years			98.0

The following Table of *births*, during the same period of time as the preceding, will show by comparison the different proportions of the sexes in the two classes of events:

# TABLE XLIX.—BIRTHS.

		Males to
Males	Females.	every 100 female
0 years, 1853-1862 18.37	17,260	106.4
863 1,899	1,788	105.8
864 1,949	1,942	100.3
865 2,090		112.9
866	2,256	108.0
867	2,464	107.0
868	2,627	104.5
869		104.9
870 2,679	2,536	104.9
871	2,800	105.8
8723,08	3,058	100.9
873 3,13	2,887	108.6
874	3,155	104.9
875		
876		108.3
877 3,16		103.0
	'	102.7
	3,091	105.4
	· ·	107.2
	· ·	105.8
	· · · · · · · · · · · · · · · · · · ·	101.4
		103.4
	· ·	104.4
.,		104.6
· ·		107.4
	•	
	**	
		103.2
	· · · · · · · · · · · · · · · · · · ·	109.5
		109.3
	· ·	
	·	103.3
		103.5
		102.9
	· ·	
900 5,62	5,459	103.0

#### SEASON AND MORTALITY.

The whole number of decedents, and the sex of the same, in each month of the year 1900, and in each division of the State, may be found in Table V, on the tenth and eleventh pages.

The influence of season upon mortality may be further illustrated by the following Table, which shows the number and percentage of deaths, compared with the whole number of deaths, in each quarter of each of the last five years, and in the aggregate for forty-five years, 1853 to 1897, inclusive:

TABLE L.

	1900.		1889.		1898.		1897.		18	96.	45 years, 1853-1897.		
SEASON.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
January-March .	2,400	27.20	2,043	27.39	1.627	23.56	1,937	27.24	1,833	24.43	47,004	24.38	
April-June	2,220	25.16	1,699	22.78	1,643	23.79	1,540	21.66	1,856	24.73	42,029	21.80	
July-September.	2,315	26.24	2,053	27.53	1,998	28.94	2,024	28.47	2,212	29.48	55,526	28.80	
OctDecember	1,888	21.40	1,663	22.30	1,637	23.71	1,609	22.63	1,603	21.36	48,235	25.02	
Total	8,823	100.00	7,458	100.00	6,905	100.00	7,110	100.00	7,504	100.00	192,794	100.00	

Comparing the percentages of 1900 with those of the forty-five years, we find that of the first quarter is 2.82 per cent. larger; the second quarter is 3.36 per cent. larger; the third quarter 2.56 per cent. smaller; and the last quarter 3.62 per cent. smaller than for the average of the forty-five years. The greatest mortality for any one season of any year is usually found in the third quarter; but in 1890 and 1900, owing in large measures to the epidemic of influenza, the first quarter had the largest mortality.

TABLE LI.

Showing the Months in the Order of Largest Mortality for Eight Years.

1803.	_	August 719 April 681	March 654	January 644	May 635	December 621	September 617	February 572	October 547	June 511	November 501	!	7,440
1894.		January 799 August 628	September 595	April 578	May 569	March 561	February 559	June 549	October 520	December 502	November 467		7,160
1895.	March 779	July 743 August 738	April 630	October 629	September 610	December 610	February 606	January 577	November 570	May 562	June, 481		7,585
1896.	July 836	August 810 March 635	April 634	May 626	January 617	June 596	February 581	September 566	December 561	October 556	November 486		7,504
1897.		February 721 September 647	July 642	March 619	January 597	October 572	December 559	April 538	May 520	June 483	November 478		7,110
1898.		September 673 July 595	December 585	March 582	April 576	May 568	October 543	January 540	November 509	February 505	June 499	1	6,905
1899.	January 785	Angust 752 July 717	March 638	December 636	April 634	February 620	September 584	May 547	November 522	June 518	October 505	1	7,458
1900.	1. April 988 January 785	2. March 915 3. August 829	4. July 823	5. February 752	6. January 733	7. December 678	S. September 663	9. May 645	10. October 629	11. June 587	12. November 581		8.833

#### NATIVITY OF DECEDENTS.

There may be found in Table I, on pages 2-5, the number of decedents in 1900, by division of the two classes of native and foreign born.

Of the whole number of decedents, 8,823, 6,348 were native born, that is, were born in the United States, and 2,475 were born outside of the United States.

#### PARENTAGE OF DECEDENTS.

Of the whole number of decedents, 8,823, reported in 1900, 3,745 were of native, and 5,078 were of foreign and unknown parentage.

By the term "foreign parentage" is meant the decedents whose fathers were born in some other country and not in the United States. The grandchildren of the foreign born are reckoned as of native parentage, if their fathers were born in the United States.

The following eleven towns reported a larger number of decedents of foreign parentage than of native, namely: Warren, Warwick, Burrillville, Central Falls, Cumberland, Johnston, Lincoln, North Smithfield, Pawtucket, Providence, and Woonsocket; also the State Institutions at Cranston.

These numbers varied from a moderate excess to three or four times as many of foreign as of native parentage.

The following Table gives the number and proportion in every one thousand deaths of decedents of native and of foreign *parentage* in each of the last five years; and in the aggregate for forty years, or from 1858 to 1897, inclusive:

TABLE LII.

	1900.		1899.		1898.		1897.		1896.		40 years, 1858-1897.	
PARENTAGE.	Number.	Per 1,000.	Number.	Per 1,000.	Number.	Per 1,000.	Number.	Per 1,000.	Number.	Per 1,000.	Number.	;Per 1,000.
Native	3,745	424.5	3,097	415.0	2,938	425.5	3,102	436.3	3,088	411.5	103,927	503.5
Foreign	5.078	575.5	4,361	585.0	3,967	571.5	4,008	563.7	4,416	588.5	102,579	496.7
Total	8.823	1000.0	7,458	1000.6	6,905	1000.0	7,110	1000.0	7,504	1000.0	206.506	1000.0

#### Age of Decedents.

In Table I, on pages 2-5, may be found the aggregate and average age of all the decedents whose deaths occurred in 1900, and with the age of each sex in each town and county in the State.

By that Table it will be seen that the average age of all the male decedents in the State, in 1900, was 31.81 years, and that the average age of all the female decedents, in the same year, was 35.58 years; the average age of all decedents, of both sexes, was 33.67 years.

The average age of the total decedents in the State, in 1900, was two years less than the average for 1899.

The average age of the male decedents, in 1900, was two and twenty-three one-hundredths of a year less, and the average age of the female decedents was one and seventy-two one-hundredths of a year less, than in the previous year.

The following Table will present, separately, the average age of the male and female decedents, and the average age of all decedents in each year for forty years; also the average age in seven periods of five years each, from 1861 to 1900, inclusive:

# TABLE LIII.

		1		
YEARS.	Average Age of Males	Average Age of Females.	Average Age of All.	Average Age, 5-year periods, 1861-1900.
1861	26.95	30.58	28.821	
862	29.64	32.65	31.15	
863	28.29	30.86	29.56	
864	28.13	30.43	29.40	
865	26.38	28.97	27.69	
866	31.13	35.07	33.09	
1867	32.16	35.86	34.01	
1868	30.47	35.08	32.85	32.42
1869	28.62	31.29	30.25	
1870	31.02	32.75	31.90	
871	32.57	34.43	33.52)	
1872	28.41	31.15	29.77	
1873	26.18	28.62	27.42	30.16
1874	28.03	31.66	28.86	
1875	29,72	32.75	31.27	
876	31.47	33.21	32.37)	
1877	29.25	31.56	30.45	
1878	29.02	31.11	30.09	31.21
879	31.29	83.24	32.29	
880	29.62	32.06	30.86	
881	30.99	34.07	32.55)	
1882	31.33	35.57	33.50	
883	33.64	37.44	35.55 }	33.99
884	32.29	35.12	33.76	
885	33.53	35.60	84.59 j	
886	33.02	34.91	34.017	
887	30.97	32.91	31.95	
888	33.17	35.74	34.53	33.42
889	32.20	35.74	34.00	
890	31.04	34.26	82.62 j	
894	32.70	36.28	34.47]	
892	32.96	37.75	35.34	
[893	30.97	33.99	32.46	
1891	32.47 31.70	34.40 36.49	33.44 34.08 J	
1896	30.86	34.47	32.61	
1897	33.71	37.06	35.37	
1898	34.34	36.34	35.31	
1809	34.04	37.30	35.67	
1900	31.81	35.58	33.67 ]	

The above Table shows that the average longevity of the decedents in Rhode Island increased over five years during a period of forty years, ending with 1900.

The following Table will present some of the facts of the preceding as occurring in the different divisions of the State, as well as of the State at large. It will show the average age of the decedents in each of the larger divisions of the State, in each of the last four years, and also the average of each of seven periods of five years each, comprising the thirty-five years from 1863 to 1897, inclusive:

TABLE LIV.

•											
DIVISIONS OF THE STATE.	1900.	1899.	1898.	1897.	1893-1897, 5 years.	1888-1892, 5 years.	1883-1887, 5 years.	1878-1882, 5 years.	1873-1877, 5 years.	1868-1872, 5 years.	1863-1867, 5 years.
Bristol County	36.06	36.89	40.09	37.84	42.78	39.76	38.45	36.68	33.61	35.12	34.78
Kent County	29.81	33.14	32.74	31.79	31.07	32.22	37.66	37.11	36.20	34.77	35.81
Newport County	39.06	42.84	39.57	41.37	39.98	40.63	42.41	39.21	40.68	40.04	33.54
Providence County *	32.48	34.70	32.18	33.98	30.79	31.63	31.83	30.60	28.46	25,26	29.16
Providence City	33.01	33.79	33.18	33.44	32.03	33.44	32.19	29.50	27.19	25.45	28.50
Washington County	44.41	50.87	50.25	46.07	46.55	46.77	48.39	41.01	41.14	39.67	30.87
Whole State	33.67	35,67	35,31	35.37	33,59	34.19	33.97	31.86	30.28	31.66	30.73

By reference to Table LIV it will be seen that the average age of all decedents during the last four years is nearly four years greater than the first period of five years, 1863–1867.

#### Percentage of Decedents by Different Ages.

In Table VI, on pages 12 to 19, inclusive, will be found the number of deaths in 1900, in each town and each county, of each sex, and in each period of life, with the percentage of the whole number of deaths in each division to the population of the same by the census of 1900.

The following Table shows the percentage of decedents in each division of ages, to whole number of deaths, in each of the last eight years, and in the aggregate for three periods: one of twenty years and seven months, from June 1st, 1852, to December 31, 1872, inclusive; one of ten years, from 1873 to 1882, inclusive; and one of ten years, from 1883 to 1892, inclusive:

<sup>\*</sup> Exclusive of Providence city.

TABLE LV.

PERIODS OF LIFE.	1900.	1899.	1898.	1897.	1896.	1895.	1894.	1893.	10 years, 1883 to 1892.	10 years, 1873 to 1882.	20 years, 7 months, 1852 to 1872.
Under one year	23.4	22.7	22.9	22.5	24.4	21.7	23.1	23.2	20.4	18.9	17.8
1 and under 2	5.7	5.1	4.7	4.9	4.7	5.3	4.8	5.2	5.6	7.6	8.8
2 and under 5	5.1	4.2	4.1	4.5	5.9	6.2	5.1	5.3	5.8	8.4	8.7
Total	34.2	32.0	31.7	31.9	35.0	33.2	33.0	33.7	31.8	34.9	35.3
5 and under 10	2.8	2.1	2.4	2.5	3.1	3.6	2.7	3.9	3.5	5.0	4.8
10 and under 20	3.6	3.7	3.8	4.4	4.4	4.2	5.1	4.5	5.1	5.8	6.0
20 and under 30	7.7	7.2	8.0	8.0	8.0	8.6	8.6	7.9	8.7	9.2	9.6
30 and under 40	7.2	8.4	8.1	7.7	8.0	7.5	7.4	8.0	7.9	7.5	8.4
40 and under 50	7.7	7.9	8.1	7.6	7.6	8.0	8.5	8.4	7.5	6.9	7.3
50 and under 60	9.9	9.7	10.1	8.5	8.9	8.6	8.9	8.9	8.5	7.2	7.0
60 and under 70	10.5	11.1	11.1	11.5	10.0	10.3	10.2	10.0	9.7	8.2	7.6
70 and under 80	10.1	11.2	10.1	10.9	9.0	9.8	9.3	8.9	9.9	8.8	7.2
80 and under 90	5.4	5.6	5.6	6.0	5.0	5.3	5.0	4.8	5.9	5.1	5.1
Over 90 and not stated	0.9	1.1	1.0	1.0	1.0	0.9	1.3	1.0	1.5	1.1	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Compared with the average of thirty years, ending with 1882, the average proportion of the mortality of children under one year of age, during the last eight years, was 4.8 per cent., or about 48 in every one thousand deaths more than the average in the longer period.

The proportions in the other periods were not greatly different from previous years, although there was some increase of percentage in the age periods above fifty years.

The following Table will present the varying proportions of deaths to whole number of deaths, in four different periods of life, from 50 years of age to 90 years, grouped in four periods of averages of ten years each, 1853–1892; in 1893, 1894, 1895, 1896, 1897, 1898, 1899, and 1900.

# TABLE LVI.

AGE OF DECEDENTS.	1st Decade, 1853-1862.	2d Decade, 1863-1872.	3d Decade, 1873-1882.	4th Decade, 1883-1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
50 to 60	Pr.ct. 6.7	Pr.ct. 7.3	Pr.ct. 7.2	Pr.ct. 8.5	Pr.ct. 8.9	Pr.ct. 8.9	Pr.ct. 8.6	Pr.ct. 8.9	Pr.ct. 8.5	Pr.ct. 10.1	Pr.ct. 9.7	Pr.ct. 9.9
60 to 70	6.9	8.3	8.2	9.7	10.0	10.2	10.3	10.0	11.5	11.1	11.1	10.5
70 to 80	7.3	8.4	8.8	9.9	8.9	9.3	9.8	9.0	10.9	10.1	11.2	10.1
80 to 90,	4.6	5.4	5.1	5.9	4.8	5.0	5.3	5.0	6.0	5.6	5.6	5.4

## COLORED DECEDENTS.

There were 242 deaths of persons of color during 1900.

The towns from which they were returned, and number in each, were as follows:

Providence City
East Greenwich4
Warwick
Little Compton
Newport City 42
New Shoreham
Central Falls
Cranston and State Institutions
East Providence
Pawtucket
Seltuate 1
Charlestown
Narragansett District
North Kingstown
South Kingstown
Richmond 2
Westerly 2
Total

Months. Deaths.	Months. Deaths.	Months. Deaths.	Months. Deaths.
January 14	April33	July18	October 19
February21	May15	August29	November14
March32	June18	September12	December17
_		_	_
First Quarter67	Second Quarter66	Third Quarter59	Fourth Quarter50

First six months, 133; second six months, 109. Total, 242.

The following summary will show the proportion, to the whole colored population, of each of the events of birth, marriage, and death of colored persons, during the twenty-three years from 1878 to 1900, inclusive:

	One Birth	One Person	One Death.
	in every	married in every	in every
1878	36.4	39.2	40.2
1879	39.6	51.4	37.3
1880	47.1	43.3	44.0
1881		39.2	
1882	36.8	44.5	45.4
1883	33.4	63.3	39.7
1884	31.8	46.0	34.5
1885	36.7	51.7	40.1
1886	34.6		37.8
1887	35.8		
1888	37.6		
1889	38.7	52.0	40.0
1890	45.3	57.6	41.0
1891	42.8	41.2	36.4
1892	40.6		31.3
1893	38.6		31.3
1891	34.3		34.2
1895	35.9	42.6	32.1
1896	35.1	38.9	37.9
1897	38.5		41.3
1898	37.9		41.8
1899	39.4	41.7	
1900		37.4	37.7

In every one thousand of the colored population there were, in 1900:

Of Births.	Of Persons Married.	Of Deaths.
25.3		

The following exhibit will show the number of living births, marriages, and deaths among the colored population of Rhode Island, during ten years, from 1861 to 1870, inclusive; 10 years, from 1871 to 1880, inclusive; ten years, from 1881 to 1890, inclusive; and for 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, and 1900, and the aggregate of the same.

10 years, 1861-18701,131 births 557 marriages1,153 deaths.
10 years, 1871-18801,615 births
10 years, 1881-1890 1,954 births
1891
1892
1893
1894
1895
1896
1897
1898
1899
1900
Total, 40 years, 6,778 births,

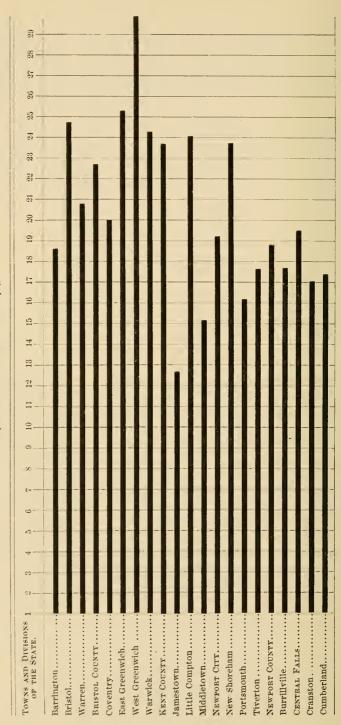
During the first ten years (1861–1870) there were 22 more deaths than births; during the second ten (1871–1880), 42 more births than deaths; during the last ten years (1881–1890), 94 more births than deaths. During 1891 the number of births was 31 less than the number of deaths. During 1892 the number of births was 54 less than the number of deaths. In 1893 the number of births was 47 less than the number of deaths. In 1894 the number of births was 1 less than the number of deaths. In 1895 the number of births was 26 less than the number of deaths. In 1896 the number of births was 17 more than the number of deaths. In 1897 the number of births was 14 more than the number of deaths. In 1898 the number of births was 20 more than the number of deaths. In 1899 the number of births was 19 less than the number of deaths, and in 1900 the number of births 11 less than the number of deaths.

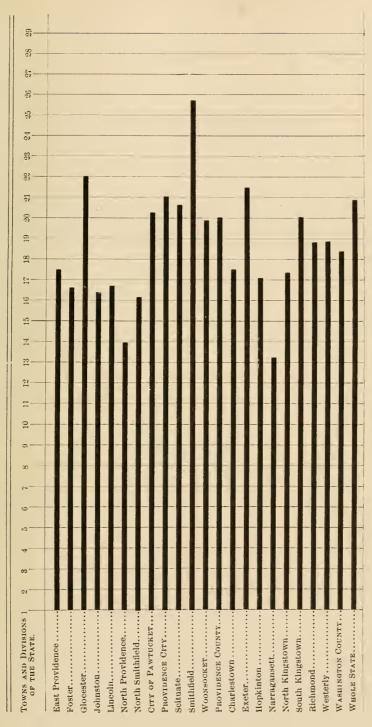


DEATH RATES.

Diagram II.—Showing the Number of Deaths in every 1,000 of the Population, in each Town and each County in the State, during the Year 1900, computed upon the Population according to the Census of 1900.

For explanation see foot-note on next page.





The figures at the top of the perpendicular lines indicate, in whole numbers, the number of deaths during the year in every 1,000 persons. The spaces are fractional parts of one. For instance, the heavy horizontal line against Barrington, at the top of this diagram, reaches across five-tenths of the space between the perpendicular lines 18 and 19. It shows the death rate of Barrington, in 1900, was eighteen and five-tenths in every 1,000 of the population.



# . CAUSES OF DEATH, 1900.

The statistics of the causes of death in Rhode Island, in 1900, may be found in Tables VII, VIII, IX, and X. The whole number of deaths, as previously stated, was 8,823, which was 1,365 greater than the number returned in 1899, and 1,918 greater than the number reported in 1898. The number of which the cause of death was reported was 8,790, and the number of which the cause was not stated was 33.

The following Table shows the number of deaths, in 1900, in each large division of the State, and the number and proportion in each division from which causes were reported unknown:

TABLE LVII.

	Bristol County.	Kent County.	Newport County Towns.	Providence County Towns.	Washington County.	Newport City.	Central Falls.	Pawtucket.	Providence City.	Woonsoeket.	Whole State.
Number of deaths	297	708	187	1,391	439	423	352	792	3,678	556	8,823
Cause not stated	1	2	1	ĩ	4	1		1	13	3	33
One in	297	354	187	199	110	123		792	283	185	267

#### TABLE LVIII.

Proportion of Deaths reported with "Causes Unknown" in each Division of the State, for a period of forty-five years, from 1856 to 1900, inclusive.

			STAT	TE DIVIS	10NS.			
YEARS.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.	Whole State.	In every 1,000 Deaths.
1856-1860, One in every	18.1	5.0	7.2	5.5	30.7	7.3	9.4	106.8
1861-1865, One in every	32.1	13.1	16.1	7.9	39.3	23.7	15.1	66.0
1866-1870, One in every	83.9	8.9	26.7	7.1	61.8	16.4	14.1	70.9
1871-1875, One in every	38.6	8.6	13.1	9.9	83.4	13.6	17.1	58.4
1876, One in every	11.5	7.9	18.5	9.9	124.3	22.8	19.3	45.8
1877, One in every	201.0	17.7	9.7	11.9	323.0	16.0	23.2	43.1
1878. One in every	32.1	7.4	9.0	13.7	124.2	21.7	21.1	47.4
1879, One in every	16.6	9.2	12.4	9.5	225.1	8.6	17.6	56.8
1880, One in every	21.9	23.5	13.5	10.5	122.3	17.8	20.7	48.3
1876-1880, One in every	31.9	17.2	19.9	18.1	39.6	26.9	25.2	39.7
1881, One in every	204.0	13.0	11.2	7.3	143.0	6.5	14.4	69.4
1882, One in every	37.6	11.6	10.9	10.6	187.0	7.7	18.8	53.2
1883, One in every	40.4	15.9	15.0	15.3	392.8	17.0	28.4	36.2
1884, One in every	100.0	40.0	81.6	91.7	372.1	90.4	122.4	8.2
1885. One in every	185.0	355.0	137.0	45.6	309.1	52.2	91.3	10.9
1881-1885, One in every	75.4	20.1	18.8	15.7	242.2	14.0	28.6	34.9
1886. One in every	110.5	192.5	86.0	87.0	195.1	55,2	113.7	7.3
1887, One in every	212.0	343.0	73.5	782.6	264.0	351.0	333.7	3.0
1888, One in every	251.0	408.0	152.7	164.3	293.8	368.0	235.7	4.3
1889, One in every	208.0	152.0	221.0	176.7	120.0	338.0	160.0	6.2
1890, One in every			236.0	109.0	190.0	159.0	161.0	6.2
1886-1890, One in every	576.0	413.0	125.1	154.8	189.0	171.2	177.6	5.6
1891, One in every			598.0	159.0	175.0	154.0	194.0	5.1
1892, One in every			591.0	240.0	212.0	184.0	264.0	3.8
1893, One in every	228.0	96.3	61.2	70.2	221.0	807.0	109.9	9.1
1891, One in every		192.3	173.0	91.6	144.9	402.0	130.2	7.7
1895, One in every		522.0	122.7	280.6	90.9	123.7	114.9	6.9
1891 1895. One in every	1,155,0	277.5	159.6	126.5	151.8	195.2	152.5	6.6
1896, One in every		116.6		707.5	155.6	382.0	258.8	3.9
1897, One in every	231.0	586.0	127.7	189.5	187.4		284.4	3.5
1898, One in every		172.0	164.6	596.2	366.1	184.5	315.2	2.9
1899, One in every	125.3	287.0	188.0	636.7	351.3	180.0	339.0	2.9
1900, One in every		354.0	305.0	281.0	282.9	109.8	267.3	3.7
1896-1900, One in every		221.4	225.9	500.1	212.8	213.3	293.0	3.4

<sup>\*</sup> Not including Providence city.

TABLE LIX.

Exhibiting the Order in regard to Number and Proportion of Decedents from Thirteen Principal Causes of Death.

Per 1,000 of Whole Zo, of Deaths, 35 years, 7 mos.		154.8	64.5	53.1	53.0	43.6	10.1	39.2	38.5	36.1	30.3	29.3	99.1	1.61
June 1st, 1852, to Dec. 31st, 1887—35 years, 7 mos.	Whole Number, 8-823 Whole Number, 7,458 Whole Number, 6,965 Whole Number, 7,110 Whole Number, 7,504 Whole Number 70,552 Whole Number	Consumption19,847	Pneumonia 8.298	556 Cholera Infantum. 5,193 Cholera Infantum 6,821	Old Age 6,797	3,885 Heart, Diseases of 5,642	416 Kidney Diseases. 387 Kidney Diseases 395 Kidney Diseases 2,893 Dysentery and Diarrhau 5,166	2,663 Apoplexy and Paralysis, 5,050	2,548 Scarlet Fever 4,971	2,449 Fevers, Typhoid, etc 4,632	2,088 Accidents, ull klnds 3,921	2,038 Diphtheria* 3,777	Convulsions 2,859	Croup 3,461
Jan. 18t. 1885, to Jan. 1st, 1897-10 years.	Whole Number 70,552	846 Consumption 7,767 Consumption	669 Pheumonia 6,213 Pheumonia	Cholera Infantum. 5,193	545 Heart Discases 4,959 Old Age	419 Apoplexy, 3,885	Kidney Diseases 2,893	299 Bronchitis 2,663	296 Accidents 2,548	288 Brain Discases 2,449	276 Old Age 2,088	849 t'uncer 2,038	226 Diphtheria 1,921 Convulsious	206 Fever, Typhoid 1.345 Croup
1896.	Whole Number, 7,504	7 Consumption 846	:		.469 Cholera Inf 545		7 Kidney Diseases 395		263 Accidents 296	251 Diphtheria 283	231 Bronchitis 276	231 Enteritis 249	226 Cancer 226	
1897.	95 Whole Number, 7,110	Consumption 987 Consumption 972 Consumption 886 Consumption 77 Consumption	686 Heart Diseases., 549 Pheumonia, 635 Pheumonia	542 Heart Discases 570 Heart Diseases	71 Apoplexy46	473 Cholera Inf., 468 Cholera Inf 425 Apoplexy	16 Kidney Diseases, 38	292 Brain Diseases., 327 Brain Diseases., 328 Brain Diseases	296 Accidents 36	279 Cancer 25	236 Diphtheria 23	233 Enteritis 23	205 Bronchitis 22	93 Old Age 159 Old Age
	58 Whole Number: 6,90	72 Consumption 8	s6 Heart Diseases., 5	48. Pueumonia 5	477 Kidney Diseases, 471 Apoplexy	73 Cholera Inf., 40	157 Apoplexy 41	92 Bruin Discuses 39	276 Accidents 29	267 Cancer 3	241 Bronchitis 23	ges Enterltis 2	219 Old Age 20	212 Diphtherla
1899.	23 Whole Number, 7,4	87 Consumption 9	Pneumonia 366 Pneumonia 63	Heart Diseases., 701 Heart Diseases., 648 Pheumonia	Cholera Inf 557 Kidney Discuses. 47	Kldney Diseases, 516 Cholera Inf 4	Apoplexy 506 Apoplexy 48	Accidents 336 Cancer 29	Bronchitts 295 Accidents 2	Cuncer 292 Brain Diseases., 20	Brain Diseases 290 Bronchitis 2	:	:	Enteritis 233 Enteritls 2
25 0.	Whole Number, 8.8	Consumption 9	Pneumonia 3	Heart Diseases 7	Cholera Inf 5	Kldney Diseases, 5	Apoplexy 5	Accidents 3	Bronchitis 2	Cuncer 3	Brain Diseases 2	Influenza 255 Old Age	Old Age 250 Influenza	Enteritis 2

The number of deaths from consumption, in 1900, was 15 more than in 1899, an increase of 1.5 per cent.

From pneumonia there was an increase of 280 deaths from that of the previous year, or 40.8 per cent. The fatality from pneumonia has been slowly increasing, in proportion to whole number of deaths, for the last twenty years.

From diseases of the heart there was an increase of 53 deaths from 1900. Diseases of the heart have been steadily increasing as causes of death, the mortality in 1900 being the largest ever recorded in this State.

From kidney diseases there was an increase of 39, or more than 8.5 per cent., over the number in 1899.

There were 255 deaths from influenza, in 1900, an increase of 27 from the number in 1899.

#### COMPARATIVE STATISTICS AND COMMENTS.

There have been presented in the preceding pages, numerically and in tabular form, the different causes of death in Rhode Island, in 1900, with various summaries and illustrations. In Tables VII and VIII they were presented at considerable length, in various specific terms; in Table IX more or less grouped in a general nosological arrangement; and in Table X the same for a period of forty-seven years.

In Table VII the number of deaths from each cause and of each sex is shown, for each month in the year, and the nativity and parentage of the decedents from each cause during the year.

In Table VIII the number of decedents of each sex, from each cause, in the different periods of life, is given.

In Table IX, with the Bertillon classification and percentage of causes of death, the number of each general cause, in each division of larger population, is given.

In Table X a nosological summary of causes of death for the whole State, in each of forty-eight years, is given, also the same Table (X) arranged by the Bertillon system.

Table LX is a compend, in part, of Tables VII, VIII, and IX, previously alluded to, and contains the particulars of the most important causes of death in 1900, and comprises the principal causes which will be commented upon in the following pages:

TABLE LN.
Deaths in Rhade Island from Twenty-six Principal Diseases.

	Thooping Cough.	88	55.75	£55	1- x 2	10 7 9	10	সে থা কা।
	Stomach Diseases	21	252	<u>::</u> +	00 to 12	01 10 10	C, 0, 4	46.4
	Scarlet Fever,	55	24	22 22	41-10	x +-	- :-	٥٥ : :
	Rheumatism.	SS	2.2	12	4+5	10 10 0I	H 2/1 00	7==
	Pneumonia.	996	479	373 593	23.52	38 73 0	01 7 6 0 7 6	22 77 77
	Pleurisy.	21.9	- 12 -				OI :	
	Old Age.	250	27.38	00 00	31 28 28	15 55 55 55 55 55	6.98	128-15 18-15
			- 78 - 186 - 11	79 13 106 10	39 - 55 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
	Measles.	516 100 185	56.8	36			<u>ा ए ७</u>	00 10 TO
	Liver Diseases,	6 10					######################################	
	Kidney Diseases.		240	975 5241			. 05 . 05 05	- <del></del>
	Influenza.	255	108	130	25 E	50 E	_ : :	
	Heart Disease.	[E	319	319 382			and a second line	25.5
	Fever, Typhoid.	233 127	51.0	51				1281
	Enteritis.	233	119	88	∞ co ∞	7 10 17	77 55	2227
	Dysentery.	8	33	\$ \$ 4	©1 : 51			ही अ क
	Diphtheria.	26 190	25 €	76	25 c s	<u>ಟ</u> ಆ &	707	8224
_	Diarrhœa.	56	10	16	ਲ ਦਾ ∶	<b>-</b> :-	4, 55 75	9
	Croup.	x	G. G.	5 5 E	7:3	23 : -	:-:	
_	Consumption	16	110 473	#57 663	25.25	381	15213	8834
-	Cholera Infantum.	557	311	207	21 00	S + 5	15	10 10 2
	Сапсет	505	961	14 126 116 144 207 20 164 179 148 350	S 85	31818	8 2 2 8	8228
	Bronchitis.	205	15.5	116	484	39 16 16	1 4 5	10 24 35
	Brain Diseases,	200	161	14 126 20 164	255	98 83 G	55 57 G	2128
	Appendicitis.	7.	133	14	400 -	H 44 31	0 00 00	w
	Apoplexy and Paralysis.	506	2548	25.1	55.5	10 00 00 00 00 1-	444	2000
	Arcidents.	136	表記	110	34	31 23 23	778	1.56
		77	- 71 - 1				. <del>.</del>	
		:	: :			: : :		
		:	: :		: : :	: : :	: : :	
		:		: :			: : :	
				: :				
			: :					
		:						
		lit			<b>.</b>			er.
		rta	Males	Native Foreign	January February March	_: : :	July August September.	October November. December
		Mo	ale	ati	unu ebr are	April May June	nly ugu pte	ove ece
		Total Mortality	F	ZE	EAZ	ムゴボ	ニュデ	ONA
		Tot	X (Males	'HOV	TENT	I 'Ne	SVAS	

# Table LX.—Concluded.

Whooping Cough.	<del>                                    </del>	400 : Unit of real
Stomach Diseases,	0.00 : : : : : : : : : : : : : : : : : :	40-41-8548
Searlet Fever.	51-13-431	
Rheumatism.	- : : : : : : : : : : : : : : : : : : :	00 T :-1-T 21 T : 00
Pneumonia.	84-481-859994	232325254
Pleurisy.	T21T-2121-01 :	: 21 - 21 02 :
Old Age.	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	5 4 5 5 8 - 4 6 6 3
Measles.		48 : : 8 r H 8 H 9
Liver Diseases.	- : : - : : - : : : : : : : : : : : :	5 1-15 to x 1- to 1-
Kidney Diseases.	885555555 13885555 1388555	25 0 1 0 1 0 1 0 1 0 0 1 0 0 0 0 0 0 0 0
Influenza,	5	※ 其 + 五 哉 to st & b t-
Heart Disease.	1 = 0 = 1 = 2 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5	35515135238 \$4
Fever, Typhoid.	51-01-48512314 : :	4 5 tt 5 1 2 5 0 0 0 2 1
Enteritis.	2 + 01 + + 10 x c c c c + :	31 21 22 22 32 25 25 25 1-
Dysentery.	\$ 10 HH H 10 11 12 11 11 11 11 11 11 11 11 11 11 11	13 7 31 33 7 7 1 7 1 3 20 1 7
Dipluberia.	7 T C C C C C C C C C C C C C C C C C C	12 왕 - 그 왕 2 왕 12
Diarrhaa.	N - : : : : - : : - : : : - : : : : : :	- + : n n : + o - n
Croup.	<u> 2</u> 31 : : : : : : : : : : : : : : : : : : :	: : : = = : : : : : : : : : : : : : : :
Consumption.	121年5日25日25日25日11日11日11日11日11日11日11日11日11日11日11日11日11	554455455
Cholera Infantum.	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	2878443888
Cancer,	::::::::::::::::::::::::::::::::::::::	810000000000000000000000000000000000000
Bronchitis.	88	308 - 43 2 4 4 4 5 6 6
Brain Diseases.	160112112121 :	20 20 20 20 20 20 20 20 20 20 20 20 20 2
Appendicitis.	:::	- 01 : - 01 : 01 : 01 : 01 : 01
Apoplexy and Paralysis,	n::-0242222-	31821153318
Accidents.	8 - 9 5 6 5 6 6 8 5 5 T	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
	Cuder 5 years.  5 to 10 years. 10 to 15 years. 15 to 20 years. 20 to 30 years. 30 to 40 years. 50 to 50 years. 70 to 80 years. 70 to 80 years. 80 years and over. Not stated.	Bristol County   Kent County   Newport County Towns   Newport City   Providence County Towns   Partial Palls   Partial Palls   Partial Palls   Providence City   Woonsocket   Washington County

#### DEATHS FROM ACCIDENTS.

The number of deaths from accidental causes in Rhode Island, in 1900, was 336.

Among the 336 deaths from accidents there were 29 from asphyxia; 1 by bicycle (in collision with dray, struck in abdomen by pole); 33 burns and scalds; 64 from drowning; 19 by electric car; 2 by elevator; 74 from falls; 4 by firearms; 13 by insolation; 2 by lightning; 7 by machinery; 15 by poison; 27 by railroad; and 46 by various other accidents.

Asphyxia.—By bed-clothing or overlaying, 9 (infants); by illuminating gas, 10 (adults); in burning house, 1; by caving in of sand-bank, 2 (laborers); by foreign substance in larynx or trachea, 3 (children); by position of head in bed, 2 (adults); by position of head on floor while intoxicated, 1; under falling building, 1. Total 29.

Burns and Scalds.—In burning building, 7 (ages 4 months, 1, 17, 47, 77 years, and 1 unknown age); by bonfire, 1 (age 3 years); playing with matches or fire, 4; by burning beeswax, 1; by clothes taking fire from stove, 6 (ages 1, 7, 17, 24, 29, 78 years); from pipe, 1; explosion of oil-stove, 1; by overturned lamp, 1; by night clothes taking fire from lighted candle, 1 (age 69 years); by falling into hot water, 5; by upset teapot of hot tea, 1 (age 1 year); while tending furnace burned arm (cellultitis ensuing), 1; manner of burns unstated, 2. Total 33.

Drowning.—While bathing or swimming, 18; through ice, 2 (ages 6, 11 years); by falling overboard from boats, 10; by falling into water during an attack of epilepsy, 2; by falling into water while playing on edge, 6; into tub of water on floor, 1 (age 2 years); from wreck of schooner Nausett, 4 (ages 11, 13, 45, 60 years); by falling from trestle, 1; by falling into water while intoxicated, 2; while attempting to rescue cap, 1 (age 5 years); while fishing, waded out into deep water, 1 (adult); found in water, manner unknown, 16. Total 64.

Electric Car.—Of the persons killed by electric cars 6 were killed in collision; 2 by falling from moving car; 1 (a conductor) by striking head against lamppost while on running board; 8 were struck by car while crossing track or lying beside it; 2 by collision of cars with bicycles. Total 19.

Falls.—Down stairs or steps, 16 (ages 1, 20-30; 1, 30-40; 2, 40-50; 2, 50-60; 6, 60-70; 2, 70-80; 2, 80-90; from building or staging, 7; from chimney (a painter), 1; from ladder, 1; from window, 5 (ages 2, 4, 5, 31, 73 years); from telegraph pole, 1; from tree, 2 (ages 34, 84 years); from trestle, 1 (age 10 years); from hay-loft, 1 (age 31 years); from freight-car while playing on top, 1 (age 11 years); from wall or fence, 2 (ages 2, 3 years); from railing of school-house, 1 (age 12 years); from bed, 2 (ages 1, 59 years); down embankment, 1 (age 64 years); from dredge in dry dock, 1 (age 32 years); on floor, ground or sidewalk, 28 (mostly old people—a fractured femur resulting in 10 cases); into coal-pocket, 1; through scuttle or trap-door, 2. Total 74.

Firearms.—By wound of hand while cleaning revolver, 1; 1 while gunning with companions; 1 by pistol-shot of finger; and 1 by explosion of an old gun while celebrating Fourth of July. Total 4.

Poison.—Corrosive sublimate taken by mistake for throat tablets, 1; laudanum, 1; by proprietary medicine, 1; by eating mushrooms, 1; by belladonna, 1; by strichnia tablets, 1; by sucking parlor matches, 1 (age 2 years); phosphorous poisoning, method and cause of taking unknown, 1; by whiskey (child drank unknown quantity from jug), 1; wood alcohol, 2; by drinking solution of potash (with which mother was washing floor), 1; by lead, 2 (painters); unspecified, 1. Total 15.

Railroad.—Of the 8 employees who were killed, 5 fell from moving cars, 1 was struck by overhead bridge, and 2 were coupling cars. Of the remainder who were killed, 1 was a passenger who fell or jumped from the train before it stopped at station; 17 were trespassers—10 of whom were walking on the tracks; 3 were stealing rides on freight cars and were struck by overhead bridge; 1 was found under coal trestle; 1 was found dead in a freight car; 1 was sitting upon station platform and was struck by passing engine; 1 jumped or fell from overhead bridge upon the engine; and 1 other was killed at grade crossing. Total 27.

Accidents, Various.—Thrown from carriage or wagon, 6; run over by heavy teams, 5 (ages 4, 5, 45, 68 years); kicked by horse, 4 (ages 7, 42, 56, 85 years); from seemingly slight wounds of hand tetanus resulted in two cases and septicæmia in four cases; wound of foot by rusty nail (tetanus resulted), 2; stepped on potato-digger eausing tetanus, 1; cut foot with dirty jackknife (septicæmia resulting), 1; other slight wounds of foot while at play, with septicæmia as a result, 2; shock from electric-light wire (a lineman), 1; elec-

trical shock received by falling against switchboard in station, 1; concussion of brain, manner of accident unspecified, 2; explosion of powder (delayed ignition), 1; frost-bite of hand, resulting in cellulitis of hand and arm, 1; axe-wound of knee, 1; crushed beneath boat, 1; struck by base-ball, 1; crushed by rails while unloading them, 1; crushed by bale of cotton, 1; fall of bar on leg, 1; crushed by falling coal from bucket, 1; scalp-wound from pointed pole in farmyard (septicæmia following), 1; crushed by falling stone from upset team, 1: stab-wound of abdomen with scissors in hands of another boy, 1; unspecified, 3. Total 46.

Comparison of the number of deaths from street-car accidents during the last four years presents the following figures:

	Struck by cars.	Collision of ears.	Otherwise.	Total.
1897	4.,		2	7
1898	6	0	1	7
1899	3	1	1	
1900	8	6		19

As a result of inattention on the part of those having the care of children, 3 fell into hot water while the attention of the mother was engaged elsewhere, the receptacles containing the hot water being left sufficiently convenient for the children to climb or fall into them; 1 pulled over upon himself teapot containing hot tea; 5 children were poisoned by being allowed access to poisonous substances; 6 children received burns which caused death, as the result of playing with bonfires or matches.

It is interesting to note the large number of cases resulting from fractures of the long bones as the sequence of a slight fall. This is especially noticeable in fractures of the hip in old people. Of the sixteen who died from falls downstairs, 12 were over 50 years of age. Fourteen out of the 28 falls on floor, ground, or sidewalk, that is, on a level, were people of over 50 years of age.

Of the whole number of deaths by accidents, 254 were males and 82 were females; 110 were of native and 226 of foreign parentage, or 32.7 per cent. of native to 67.3 of foreign.

Of the sexes, the proportion was 75.6 per cent. of male decedents to 24.4 per cent. of female decedents.

In regard to periods of life, the decedents from accidental causes were divided as follows: under 5 years, 52; 5 and under 10, 19; between 10 and 20, 38; between 20 and 40, 90; between 40 and 60, 80; over 60, 57.

In regard to sectional divisions of the State, 15 of the deaths from accidental causes were in Bristol county; 30 in Kent county; 12 in Newport county; 260 in Providence county; and 19 in Washington county.

The whole number of deaths from accidental causes, in 1900, in proportion to the whole number of deaths in the State, was 38 in every one thousand. The number in proportion to the whole population was .78 in every one thousand.

The number of deaths by accidents in each division of the year was as follows:

First Quarter	78	Third Quarter	105
Second Quarter	82	Fourth Quarter	71
First half	160	Second half	176
Whole year		336	

In the following Table may be found the number, sex, parentage, and locality of mortality from accidents, for thirty-five years, ending December 31, 1900:

### TABLE LXI.

Mortality in the State from Accidents, with the Percentage of the Whole Number of Deaths; Sex, Parentage, and Locality, for thirty-five years, from 1866 to 1900, inclusive, in three periods of five years each, and for each of the last twenty years.

	ï				VARI	ETI	ES.			1	s	EX.		RENT	-	ST.	ATE	DIV	ISION	s.
YEARS.	Whole Number.	Burns and Scalds.	Drowning.	Falls.	Fractures and Con-	Poisoning.	Railroad.	Suffocation.	Various and Un-	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newbort County.	Providence County.*	Providence City.	Washington County.
5 yrs., 1866 1870	. 490	77	124	1, 89	9	1:	1 48	 3	145	3 2.1	8 37	5 11	5 23	8 25	2 2	2 3	4 4	5 18	7 169	2 39
5 yrs., 1871 1875		72	3 16	1 90	) )	. 21	71	·	180	3.2.9	7 49	3 11	7 28	3 32	7 2	6 4	   50	200	0 240	18
5 yrs., 1876 1880		7:	5 166	6 69	9	. 28	58	3 14		2.7		0 15	7 24	9 358	3 17	7 5	3 4'	178	8 281	31
1881	. 158	16	3 20	19	·		20	19	48	3.0	9 10	7 4	8 6	2 9	3	5 1	7 19	60	50	5
1882	. 178	17	40	3	ı	(	16	8	60	3.5	13	0 4	8 7	2 100	; :	5 9	15	60	80	9
1883	158	18	3 27	21	٠	(	5 16	12	58	3.8	3 11	7 3	6	1 9:	2 4	1 8	3 9	65	66	3
1884	197	20	41	31	·	7	16	11	71	3.8	14	7 5	9	0 107	7 .	5 19	1.	65	76	18
1885	178	19	42	20		5	15	9	54	3.20	13	5 38	3 7	2 101	5	5 (	3 8	58	83	13
1881-1885	850	90	179	127		37	83	59	281	3.26	63	5 220	35	7 499	2.	59	58	300	361	48
1886	190	28	58	19		0	20	9	55	3.2	14:	1 49	8	1 100	16	11	16	62	72	13
1887	206	17	39	17	23	7	24	14	65	3.24	158	3 48	9:	2 114	E	11	28	81	71	15
1888	190	27	46	18	8	12	25	8	46	2.87	143	5 43	6	3 127	4	0	14	70	88	8
1889	216	20	52	31	25	7	23	9	49	4.10	140	3 70	88	128	2	14	18	73	101	13
1890	250	20	71	32	26	11	31	12	47	3.60	199	51	99	151	7	17	24	75	111	16
1886-1890	1052	107	266	117	82	43	123	52	262	3.29	789	263	420	626	31	59	90	861	4 13	65
1891	233	18	52	21	29	16	30	17	50	3.54	174	59	73	155	5	18	16	95	89	10
1892	309	21	48	33	60	20	29	8	90	4.18	225	84	115	194	8	13	21	100	158	9
1893	261	26	47	25	25	14	39	14	74	3.55	195	69	88	176	9	21	21	75	126	12
1894	231	28	52	29	20	8	36	21	40	3.27	189	45	74	160	6	24	18	88	81	17
1895	293	28	61	57	2	-8	36	26	75	3.89	283	60	88	205	6	23	13	85	141	25
1891-1895	1333	121	260	165	136	66	170	86	829	3.69	1016	317	443	890	31	99	89	448	595	73
1896	296	25	39	48		8	36	21	116	3.91	226	70	101	195	6	25	24	85	139	17
1897	263	41	40	64		7	21	22	65	3.70	197	66	91	169	12	15	22	87	115	12
1898	296	21	60	58		8	30	19	100	1.29	233	63	111	185	11	18	26	85	134	22
1899	276	28	45	61		7	38	31	66	3.70	217	59	109	167	9	16	30	82	125	14
1900	336	33	64	72		16	26	29	96	3.81	254	85	110	226	15	30	12	101	159	19
1896-1900	1467	148	248	303		46	151	125	443	3.88	1127	840	525	913	53	101	114	440	672	84
Total,35 yrs	6415	696	1407 9	960	218	255	702 :	336 1	841	3.56	4886	1529	2521	3894	210	454	494	2115	2754	388

<sup>\*</sup> Exclusive of Providence city.

### TABLE LXII.

Mortality in the State from Alcoholism, with the Percentage of the Whole Number of Deaths, Sex, Parentage, and Locality, for thirty-five years, from 1866 to 1900, inclusive.

	eath:		SE	ex.	PARES	NTAGE.		DIVISIONS OF THE STATE.							
YEARS.	Number of Deaths from Alcoholism.	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.			
5 years, 1866-1870	62	.40	53	9	32	30	5	6	6	18	25	:			
5 years, 1871-1875	93	. 45	73	20	37	56	2	6	9	25	48	:			
5 years, 1876-1880	79	.35	52	27	25	54	2	4	6	18	45	4			
1881	24	.51	17	7	5	19	1		1	7	11	1			
1882	28	.58	16	12	8	50		,		9	18	1			
1883	29	.54	17	12	7	55		1	1	10	16	1			
1884	27	.53	19	8	10	17		1	4	9	12	. 1			
1885	53	.41	16	6	6	16	2	1		11	7	. :			
1881-1885	130	.50	85	45	36	94	3	3	6	46	67				
1886	12	.20	9	3	2	10	1		1	3	ĩ				
1887	16	.25	14	3	4	12	2	2	2	5	4	. :			
1888	16	.32	10	6	5	11			2	5	9				
1889	31	.50	23	8	12	19	2	1	1	13	14				
1890	25	.37	50	5	8	17	2			11	11	1			
1886-1890	100	.31	76	24	31	69	ĩ	3	6	37	45	1			
1891	29	.47	22	7	8	21	1	1	4	10	13				
1892	36	.48	27	9	s	28	1		4	12	17	:			
1893	44	.59	34	10	15	29		3	ĩ	9	23	2			
1894	39	.54	33	6	12	27	1	4	2	14	16	2			
1895	24	.32	19	5	5	19				10	13	1			
1891-1895,	172	.48	135	37	48	124	3	8	17	55	82	7			
1896	34	.45	28	6	ĩ	27	1	5	6	10	14	1			
1897	36	.51	26	10	10	26		1	5	11	15	4			
1898	45	.65	37	8	13	32		3	8	13	22	4			
1899	34	.45	26	8	9	25	1	3	4	9	16	1			
1900	62	.70	47	15	12	50	1	2	3	12	42	2			
1896 -1900	211	.56	164	47	51	160	3	11	21	55	109	15			
Total, 35 years	817	.45	638	209	260	597	25	41	71	254	421	35			

<sup>\*</sup> Exclusive of Providence city.

### APOPLEXY AND PARALYSIS.

There were 506 deaths from apoplexy and paralysis in Rhode Island, in 1900, according to the returns. The number reported is 49 more than in the year 1899.

The whole number of deaths from these two causes represents 5.74 per cent. of *all causes*, and a proportion of 1.11 to every one thousand of the population.

Of the sexes, there were 248 males and 258 females.

Of parentage, 275 were of native parentage, and 231 of foreign.

As observed in previous reports, the older native population has steadily been, in a very large proportion, more prone to apoplexy than the foreign, or the children of the foreign, population.

It will be observed that the proportion of deaths from apoplexy and paralysis, to the whole mortality from all causes, has steadily increased from about three and three-quarters per cent., during the first quinquennial (1866–1870), to nearly six per cent. during the quinquennial (1896–1900).

The following Table will present the sex, parental, and local relations of apoplexy and paralysis, as causes of death, during the last thirty-five years (Providence city not included in the Providence county statement):

Table LXIII.

Mortality in the State from Apoplexy and Paralysis, 1866 to 1900, inclusive.

	for	Ap- aral-		SE	x.	PAREN	TAGE.		DIVISI	ONS OF	THE	STATE.	
YEARS.	Total Deaths for Year,	Number from Apoplexy and Paralysis.	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870	15,391	574	3.73	284	290	464	110	52	43	77	145	224	33
1871	3,844	156	4.66	73	83	113	43	10	17	15	40	61	13
1872	4,247	125	2.97	62	63	96	29	17	9	10	27	52	10
1873	4,403	134	3.04	59	75	109	25	9	8	17	26	57	17
1874	4,229	156	3.69	84	72	120	36	14	10	16	42	59	15
1875	4,317	166	3.61	79	87	133	33	7	13	17	46	75	8
1871-1875	20,540	787	3.59	357	380	571	166	57	57	75	181	304	63
1876	4,116	165	4.01	79	86	130	35	13	11	13	45	68	15
1877	4,450	181	4.07	87	94	123	58.	10	10	16	52	74	19
1878	4,441	188	4.23	104	84	145	43	12	16	21	58	66	15
1879	4,472	220	4.92	114	106	146	74	12	9	29	71	89	10
1880	4,829	215	4.67	109	106	157	58	18	13	22	71	78	18
1876-1880	22,308	969	4.77	493	476	701	268	65	59	101	297	375	72
1881	5,016	244	4.86	116	128	170	74	17	15	25	70	101	16
1882	5,074	265	5.22	139	126	168	97	15	29	24	65	117	15
1883	5,282	275	5.22	138	137	192	83	11	28	22	75	118	21
1884	5,141	298	5.80	135	163	176	122	21	14	28	108	105	22
1885,	5,389	289	5.38	144	145	183	106	16	18	28	99	110	18
1881-1885	25,902	1,371	5.29	672	699	889	482	80	104	127	417	651	92
1886	5,849	333	5.70	173	160	230	103	11	27	32	108	120	35
1887	6,340	328	5.17	161	167	213	115	21	27	23	101	128	28
1888	6,594	367	5.41	164	203	234	133	29	26	29	113	137	33
1889	6,259	323	5.17	140	183	204	119	23	35	28	101	106	33
1890	6,934	341	4.91	168	173	206	135	21	21	23	110	144	22
1886-1890	31,976	1,692	5.29	806	886	1,087	605	105	133	135	533	635	151
1891	6,620	335	5.08	160	175	207	128	17	29	32	118	118	21
1892	7,396	362	4.29	176	186	195	167	12	29	39	124	134	24
1893	7,440	407	5.47	206	201	227	180	21	28	26	138	171	23
1894	7,160	445	6.22	231	214	243	505	19	33	40	155	165	83
1895	7,535	417	5.53	199	218	238	179	18	29	30	150	153	37
1891-1895	36,151	1,966	5.71	972	991	1,110	856	87	148	167	685	741	138
1896	7,504	419	5.58	199	220	235	184	20	30	42	146	141	40
1897	7,110	469	6.70	229	240	263	206	13	33	40	175	184	24
1898	6,905	416	6.02	203	213	245	171	17	30	48	136	152	33
1899	7,458	457	6.13	210	247	230	227	19	32	36	154	179	87
1900	8,823	506	5.74	248	258	275	231	18	38	49	175	189	37
1896-1900	37,800	2,267	6.00	1,089	1,178	1,248	1,019	87	163	215	786	845	171

<sup>\*</sup> Not including Providence city.

## TABLE LXIV.

Ages of Decedents from Apoplexy and Paralysis, in each of the last thirty-five years.

	Periods of Life.											
APOPLEXY AND PARALYSIS.	Under 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 and over.	Not stated.			
1866	1	1	7	16	9	24	27	7				
1867	2		6	6	15	38	40	17				
1868	2	3	3	11	16	27	31	16	2			
1869	1	1	5	12	20	28	34	15	1			
1870	4	1	10	9	12	33	41	20				
1871	3	4	7	14	21	46	45	15	1			
1872	1	4	5	17	20	26	41	11				
1873	2	3	4	14	22	35	37	16	1			
1874	1	2	. 9	9	30	39	40	25	1			
1875	6	2	8	19	23	40	45	22	1			
1876	4	4	4	13	25	43	49	23				
1877	1	2	9	12	24	50	61	22				
1878	4	2	7	1-1	41	40	53	26	1			
1879	4	6	11	18	27	57	59	38				
1880	1	2	8	18	21	59	70	34	2			
1881	1	7	11	20	36	55	70	42	2			
1882	4	5	14	28	41	57	77	38	1			
1883	8	4	11	19	45	56	83	49				
1884	10	7	16	21	32	68	95	45	4			
1885	8	5	7	25	29	76	94	44	1			
1886	7	8	10	25	59	65	112	51	3			
1887	12	6	13	26	50	90	96	35				
1888	10	4	18	29	61	85	100	60				
1889	6	6	11	36	45	87	92	39	1			
1890	7 4	5	13	29	52 61	81	100 90	50	1			
1891	3	6	15	40	60	88	95	47	1			
1892	13	6	17	45	62	91 110	108	49	1			
1893	12	5	19	39	88	108	111	65	1			
1894	6	2	24	39	76	101	106	63	,			
1895 1896	1	7	17	81	76	118	110	55	1			
1897	3	3	12	37	77	136	144	57				
1898	3	8	12	37	75	108	117	54	2			
1899	5	6	21	34	73	118	118	81	1			
1900	6	5	19	42	97	131	131	71	1			
*****					-				-			
Total	. 16G	118	399	831	1,514	2,420	2,722	1,345	31			

#### Appendicitis.

From a greater perfection in diagnosis of disease of the abdominal viscera, the disease known as appendicitis has received greater attention. This was probably reported in previous years under the head of diseases of the bowels, intussusception, or peritonitis.

During 1900 there were 34 deaths from appendicitis reported, and of this number operations were performed in 24 cases.

As there were 15 deaths from peritonitits in 1900, this would represent over sixty-nine per cent. of the combined numbers.

Of the 34 cases of appendicitis, 23 were males, and 11 were females. 14 were of native, and 20 of foreign parentage.

#### Brain Diseases.

The number of decedents from diseases of the brain proper, in 1900, was 290.

This number represents 3.29 per cent. of all causes, and a proportion of .61 to every one thousand of the whole population.

Of the 290 decedents, 161 were males, and 129 were females.

In regard to parentage, 126 were of native, and 164 of foreign parentage.

The deaths in the different seasons of the year were as follows:

First Quarter	60	Third Quarter	86
Second Quarter	77	Fourth Quarter	67
-			_
First half	137	Second half	153
Whole year			

Brain diseases occur largely in children. Of the 290 decedents from those causes, in 1900, 160 were under five years of age, and 17 were from 5 to 10 years of age.

The following Table will present the statistics of mortality from diseases of the brain, for thirty-five years:

### TABLE LXV.

Mortality in the State from Brain Diseases, with the Percentage, Sex, Parentage, and Locality, for thirty-five years, from 1866 to 1900, inclusive.

	eaths		SI	EX.	PAREI	NTAGE.		DIVISI	ons o	F THE	STATE.	
YEARS.	Number of Deaths from Brain Diseases.	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870	465	3.02	249	216	274	191	21	24	34	139	222	25
1871-1875	607	2.95	331	276	358	249	12	32	39	167	337	20
1876	150	3.64	92	58	89	61	3	11	7	39	85	5
1877	160	3.59	88	72	91	69	3	7	11	49	85	5
1878	142	3.19	75	67	76	66	1	13	12	45	68	3
1879	163	3.65	82	81	88	75	3	13	15	51	75	6
1880	164	3.39	87	77	89	75	3	6	12	56	81	6
1876-1880	779	3.49	424	355	433	346	13	50	57	240	394	25
1881	186	3.69	103	83	85	101	7	11	14	58	91	5
1882	181	3.50	93	88	92	89	4	10	10	71	80	6
1883	187	3.54	96	91	100	87	8	14	15	52	94	4
1884	148	2.88	90	58	77	71	4	9	8	41	83	3
1885	189	2.51	98	91	94	95	2	11	20	53	100	3
1881-1885	891	3.44	480	411	448	443	25	55	67	275	448	21
1886	182	3.09	108	74	84	98	4	14	13	69	78	4
1887	203	3.21	120	83	103	100	8	9	14	75	95	2
1888	212	3.21	114	98	109	103	4	19	12	76	90	11
1889	189	3.58	91	98	96	93	5	12	17	72	78	5
1890	217	3.13	113	104	119	98	. 7	13	17	90	85	5
1886-1890	1,003	3.11	546	457	511	492	28	67	73	382	426	27
1891	222	3.36	135	87	108	114	8	19	19	93	78	5
1892	246	3.33	130	116	123	124	8	22	27	96	83	10
1893	257	3.46	139	118	116	141	12	17	23	100	98	7
1894	221	3.09	122	99	93	128	4	24	13	82	84	14
1895	258	8.42	123	135	126	132	14	25	22	81	105	11
1891-1895	1,204	3.33	649	555	565	639	46	107	104	452	448	47
1896	299	3.98	152	147	136	168	10	24	88	189	79	9
1897	328	4.61	179	149	151	177	7	26	30	178	78	9
1898	327	4.73	176	151	181	196	5	26	26	157	100	18
1899	267	3.58	143	124	117	150	8	16	20	148	77	3
1900	290	3.20	161	129	126	164	3	26	34	151	69	7
1896-1900	1,511	4.00	811	700	661	850	33	118	148	768	403	41
Total, 85 years	6,460	3.40	3,490	2,970	3,250	3,210	178	453	522	2,423	2,678	206

<sup>\*</sup> Exclusive of Providence city.

#### Bronchitis.

The number of decedents in 1900, whose deaths were reported as having been caused by bronchitis, was 295. This is 54 more than in 1899.

This number represents 3.34 per cent. of all causes, and a proportion of .69 to every one thousand of the population.

Of the 295 decedents, 143 were males, and 152 were females; or at the rate of 94 males to each 100 females.

In relation to parentage, 116 were of native, and 179 of foreign parentage.

In regard to age, 183 of the decedents were under 5 years of age, 11 were between 5 and 20 years, 5 between 20 and 40 years, 19 between 40 and 60 years; and of the remaining 77 decedents, above 60 years of age, there were 36 deaths from chronic bronchitis.

During the first four months of the year the decedents from bronchitis numbered 160, during the last four months the number was 75.

The very large increase in the proportionate mortality from bronchitis, during the last twenty years, will scarcely fail to be noticed in Table LXVI.

The following Table will show various facts in relation to the mortality from bronchitis, for thirty-five years:

Table LXVI.

Mortality in the State from Bronchitis, thirty-five years, 1866 to 1900, inclusive.

	eaths		sı	EX.	PARE	NTAGE,	DIVISIONS OF THE STATE.						
YEARS.	Number of Deaths	Per cent.	Males,	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.	
1866-1870	99	.64	43	56	47	52	1	4	7	29	56	2	
1871	24	.78	10	14	11	13		1	1	5	17		
1872	25	.65	10	15	11	14	1	1	1	6	16		
1873	27	.64	12	15	11	16			1	7	18	1	
1874	39	.96	22	17	12	27				6	32	1	
1875	57	1.39	32	25	29	28			1	21	33	2	
1871-1875	172	.84	86	86	74	98	1	2	4	45	116	4	
1876	57	1.46	23	34	26	31		2		7	46	2	
1877	69	1.62	32	37	35	- 34	1	1	1	22	44		
1878	80	1.89	30	50	37	43	1	2	6	22	48	1	
1879	62	1.47	31	31	31	31	1	1	5	21	34		
1880	91	1.86	49	42	44	47	1	6	- 6	21	56	1	
1876-1880	359	1.61	165	194	173	186	4	12	18	93	228	4	
1881	84	.67	48	36	39	45	1	1	2	25	53	2	
1882	100	1.27	39	61	47	53	3	2	б	25	60	4	
1883	111	2.10	56	55	51	60	5	2	3	42	57	2	
1884	118	2.29	58	60	40	78	6		8	42	62		
1885	168	3.08	82	86	91	77	5	3	13	71	76		
1881-1885	581	2.24	283	298	268	313	20	8	32	205	308	8	
1886	174	2.96	75	99	81	93	3	4	9	74	83	1	
1887	176	2.77	90	86	60	116	3	6	19	63	84	1	
1888	228	3.45	105	123	79	149	3	4	17	110	88	6	
1889	260	4.20	128	132	90	170	4	8	18	109	110	11	
1890	275	4.01	140	135	116	159	5	4	15	107	138	6	
1886-1890	1,113	3.48	538	575	426	687	18	26	78	468	503	25	
¶891	247	3.74	108	139	95	152	13	15	21	85	111	2	
1892	308	4.16	147	161	117	191	5	15	21	130	130	7	
1893	315	4.24	164	151	105	210	4	9	21	150	126	5	
1891	254	3.55	112	142	85	172	4	15	11	98	120	6	
1895	274	3.61	133	141	92	182	8	15		103	122	7	
1891–1895	1,898	3.87	664	784	491	907	31	69	93	566	609	27	
1896	276	3.68	143	133	101	175	8	19	9	112	116	12	
1897	226	3.18	123	108	83	148	6	19	13	88	91	6	
1898	236	3.42	109	127 (	76	160	6	14	11	87	103	15	
1899	241	3.23	118	123	73	168	7	16	10	96	103	9	
1900	295	8.84	143	152	116	179	6	30		101	127	3	
1896_1900	1,274	8.37	636	638	419	825	33	98	65	484	548	51	
Total, 35 years	4,996	2.63	2,415	2,581	1,928	3,068	111	219	297	1,885	2,363	121	

<sup>\*</sup> Exclusive of Providence city.

#### CANCER.

There were 292 decedents, in 1900, whose deaths were caused by cancer, according to the returns. The term cancer includes all the various kinds, and in whatever place located.

This number represents 3.31 per cent. of all causes, and a pro-

portion of .68 to every one thousand of the population.

The varieties of cancer, as reported, may be found in Tables VII and VIII, on pages 22, 23, 35, 36, and 37. They are classed in Table IX as follows: cancer of the buccal cavity, 11; cancer of the stomach and liver, 121; cancer of the peritoneum, intestines, and rectum, 27; cancer of the female genital organs, 52; cancer of the breast, 41; cancer of the skin, 21; cancer of other organs and organs not specified, 19.

In 1900, the deaths from cancer, in the several divisions of the year, were as follows:

First Quarter	66	Third Quarter	80
Second Quarter	68	Fourth Quarter	78
First Half	134	Second half	158
Whole year		292.	

Sex.—Of the 292 decedents from cancer, 96 were males, and 196 were females; or 33 males and 67 females in every 100.

Parentage.—There were 144 of native parentage, and 148 of foreign.

The following Table will show the facts of mortality from cancer, in relation to sex, parentage, and locality, for thirty-five years:

Table LXVII.

Mortality in the State from Cancer, 1866 to 1900, inclusive.

	eaths.		SE	x.	PAREN	TAGE.	DIVISIONS OF THE STATE.						
YEARS.	Number of Deaths	Per cent.	Males.	Females,	Native.	Foreign.	Bristol County,	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.	
5 years, 1866-1870	328	2.13	98	230	269	59	19	33	38	87	131	20	
1871	66	2.13	25	41	47	19		7	5	25	25	4	
1872	95	2.46	26	69	66	29	4	7	9	21	50	4	
1873	106	2.53	45	61	76	30	4	6	12	32	44	8	
1874	87	2.13	23	64	67	20	4	6	12	54	38	3	
1875	95	2.31	24	71	62	33	3	6	7	25	49	5	
1871-1875	449	2.18	143	306	318	131	15	32	45	127	206	24	
1876	106	2.72	27	79	72	34	5	6	8	27	53	7	
1877	135	3.17	29	106	87	48	3	7	9	37	66	13	
1878	. 119	2.82	38	81	79	40	5	11	8	37	48	10	
1879	125	2.96	39	86	70	55	9	6	9	28	66	7	
1880	125	2.72	45	80	73	52	5	10	12	26	68	4	
1876-1880	610	2.73	178	432	381	229	27	40	46	155	301	41	
1881	145	2.90	40	105	90	55	8	10	12	42	65	8	
1882	132	2.75	40	92	82	50	5	15	9	43	52	8	
1883	169	3.20	51	118	105	64	3	17	12	49	86	2	
1884	156	3.05	39	117	88	68	2	18	21	41	70	4	
1885	193	3.59	52	141	114	79	8	9	8	67	88	13	
1881-1885	795	3.07	222	573	479	316	26	69	62	243	361	35	
1886	162	2.77	42	120	75	87	6	11	9	37	87	12	
1887	159	2.50	49	110	96	68	8	5	10	49	80	7	
1888	193	2.93	67	126	128	65	9	10	12	57	88	17	
1889	189	3.03	65	124	104	85	4	10	13	57	82	23	
1890	165	2.41	56	109	92	73	14	10	13	46	74	- 8	
1886-1890	868	2.71	279	589	495	373	41	46	57	246	411	67	
1891	177	2.67	48	129	104	73	8	11	15	46	83	14	
1892	181	2.45	53	128	103	78	7	16	16	57	75	10	
1893	205	2.75	54	151	124	81	6	15	17	56	92	19	
1894	214	2.99	67	147	121	98	13	11	23	75	73	19	
1895	234	3.11	74	160	106	128	13	12	17	79	96	17	
1891–1895	1,011	2.79	296	715	558	453	47	65	88	313	419	79	
1896	226	3.01	61	165	117	109	6	21	12	81	89	17	
1897	254	3.57	77	177	128	126	12	14	22	86	103	17	
1898	279	4.04	83	196	159	120	18	18	24	75	119	25	
1899	505	3.92	95	197	135	157	11	16	29	83	132	21	
1900	292	3.31	96	196	144	148	18	19	15	87	182	21	
1896 1900	1,343	8.55	412	931	683	660	65	88	102	412	575	101	
Total, 35 years	5,401	2.84	1,628	3.776	8,183	2,221	240	373	488	1,582	2,404	367	

<sup>\*</sup> Exclusive of Providence city.

#### Child-Birth.

Under the head of "Child-birth" are included, in this connection, whatever causes of death that may have occurred as the direct result of child-birth, or parturition.

The number reported in 1900 was 99, 27 of which were from the immediate effects of child-birth, including hemorrhage, rupture of uterus, etc., 8 from peritonitis, 23 from puerperal nephritis and convulsions, and 41 from puerperal fever or septicæmia.

Of the whole number, 27 were of native, and 72 of foreign parentage.

This number represents 1.12 per cent. of all causes, and a proportion of .23 to every one thousand of the population.

There were 44 more deaths from "child-birth" in 1900 than in 1899.

The following Table will present the various relations in regard to the mortality from child-birth, for thirty-five years, 1866-1900.

### TABLE LXVIII.

Mortality in the State from Child-Birth, with the Percentage of the Whole Number of Deaths, Parentage, and Locality, for thirty-five years, from 1866 to 1900, inclusive.

	eaths irth.		PAREN	TAGE.		DIVISIO	ONS OF	THE	STATE.	
YEARS.	Number of Deaths from Child-Birth.	Per cent.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870	155 245	1.01	62 111	93 134	7	6 21	16 12	59 76	56 110	11 19
1876	48	1.24	21	27	3		1	18	23	3
1877	46	1.09	18	28	4	3	5	17	17	
1878	43	1.01	23	20	2	-4	3	9	21	4
1879	43	1.02	21	5.5	1	7	2	6	23	4
1880	51	1.11	23	28	4	4	3	10	27	3
1876-1880	231	1.04	106	125	14	18	14	60	111	14
1881	60	1.28	26	34	1	1	3	22	29	4
1882	50	1.03	18	32		5	1	16	27	1
1883	58	1.10	26	33	1	5	9	14	27	2
1884	47	.91	17	30		3	3	19	18	4
1885	47	.87	21	26		3	4	15	24	1
1881-1885	262	1.04	108	154	2	17	20	86	125	12
1886	41	.70	17	24		4	4	15	17	1
1887	53	.71	15	38		5	4	18	26	
1888	51	.77	13	38		3		25	20	3
1889	41	.65	14	27	1	5	5	16	13	4
1890	41	.58	12	29	3	4	4	10	17	3
1886-1890	274	.86	93	182	4	24	18	99	117	12
1891	32	.35	8	24		3		8	19	2
1892	75	1.01	29	46	1	9	3	24	29	9
1893	57	.76	23	34		5	4	15	29	4
1894	72	1.01	15	57		8	3	25	32	4
1895	55	.73	16	39		3		18	30	4
1891-1895	291	.77	91	200	1	28	10	90	139	28
1896	50	67	16	34		2	1	21	17	6
1897	57	.80	18	39	2	8		21	22	4
1898	71	1.02	22	49	1	6	1	28	32	8
1899	55	.74	11	44	1	7	3	15	27	2
1900	99	1.12	27	72	2	11	-4	31	47	4
1896-1900	332	.88	94	238	- 6	84	9	119	145	19
Total, 35 years	1,790	.94	664	1,126	41	148	99	589	803	110

<sup>\*</sup> Exclusive of Providence city.

### CHOLERA INFANTUM.

The number of deaths from cholera infantum, according to the returns for 1900, was 557.

This number represents 6.54 per cent. of deaths from all causes, and a proportion of 1.30 to every one thousand of the population.

Of the 557 decedents, 311 were males, and 246 were females.

Of parentage, 207 were of native, and 350 of foreign parentage; or about 169 of foreign to every 100 of native parentage.

The mortality from cholera infantum, during 1900, was .20 per cent. more than during the year 1899.

As may be seen on the following page, the number of decedents from cholera infantum, during the thirty-five years from 1866 to 1900, inclusive, was 12,095.

The proportion to total mortality for the period of thirty-five years was 6.3 per cent. For 1897 the proportion was 5.9 per cent.; for 1898, 6.7 per cent.; for 1899, 6.3 per cent.; and for 1900, 6.5.

There were 111 males to every 100 females among the decedents during the thirty-five years; and 163 decedents of foreign parentage to every 100 of native, during the same period.

The following Table shows the whole number of reported deaths from cholera infantum; the sex and parentage of the decedents; and the number in each of the larger divisions of the State, in each of the last thirty-five years:

Table LXIX.

Mortality in the State from Cholera Infantum, 1866 to 1900, inclusive.

	no.		1		1							
	aths		SE	X.	PAREN	TAGE.		DIVISI	ONS OF	THE	STATE.	
YEARS.	Number of Deaths	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County *	Providence City.	Washington County.
5 years, 1866-1870	745	4.84	403	342	352	393	39	44	46	245	324	47
1871	172	4.82	85	87	82	90	14	12	12	59	62	19
1872	391	8.71	195	196	167	224	16	16	21	157	151	30
1873	285	6.19	148	137	165	120	17	14	16	120	99	19
1874	265	5.86	140	125	115	150	4	12	5	84	134	26
1875	318	6.97	156	162	155	163	20	16	20	108	136	18
1871-1875	1,431	6.97	724	707	684	747	71	70	74	528	582	106
1876	250	5.75	131	119	105	145	5	12	29	68	124	19
1877	259	5.52	139	120	96	163	12	13	9	96	122	7
1878	168	3.58	96	72	73	95	7	14	7	64	71	ā
1879	161	3.43	88	73	71	90	8	16	21	51	59	6
1880	247	5.12	123	124	109	138	.13	11	10	93	100	50
1876-1880	1,085	4.86	577	508	454	631	45	66	76	372	476	50
1881	240	4.54	130	110	102	138	10	22	14	75	102	17
1882	325	6.10	173	152	133	192	20	11	19	132	130	18
1883	242	4.37	124	118	104	138	12	7	22	88	108	
1884	325	6.00	177	148	139	186	10	12	26	114	144	19
1885	279	4.92	150	129	128	151	5	23	16	133	86	10
1881-1885	1,411	5.45	754	657	606	805	57	75	97	542	570	70
1886	377	6.14	179	198	143	234	4	29	15	194	120	10
1887	355	5.36	200	155	145	210	16	16	35	160	119	(
1888	467	6.78	239	228	184	283	18	35	28	219	149	18
1889	396	6.01	209	187	132	264	18	32	50	199	116	11
1890	582	8.01	282	300	202	380	19	57	33	245	209	- 19
1886-1890	2,177	6.81	1,109	1,068	806	1,371	75	169	131	1,017	713	75
1891	516	8.25	298	248	170	376	21	68	50	255	137	10
1892	633	8.56	336	297	210	423	18	77	43	281	201	18
1893	603	8.10	321	279	186	417	11	82	44	267	183	10
1894	496	6.93	513	253	162	334	13	76	25	225	130	21
1895	500	6.64	268	232	155	345	14	57	19	241	150	19
1891-1895	2,778	7.55	1,469	1,309	883	1,895	77	360	181	1,209	801	90
1896	545	7.26	313	232	165	380	5	62	38	277	148	16
1897	425	5.98	201	221	160	265	12	63	30	179	120	21
1898	468	6.78	240	228	163	305	14	62	28	211	144	1
1899	473	6.84	265	208	127	846	32	48	23	220	139	11
1900	557	6.54	311	516	207	350	19	60	47	281	125	25
1896-1900	2,468	6.53	1,833	1,135	822	1,646	83	295	166	1,168	676	81
		6.36	6,369	5,726	4,607	7,488	446	1,079	771	5,141	4,142	516

<sup>\*</sup> Exclusive of Providence city.

### Consumption.

The decedents from consumption, during 1900, numbered 987. The number is 15 more than in the preceding year.

This number represents 11.82 per cent. of *all causes*, and a proportion of 2.33 to every one thousand of the *population*.

Sex.—Of these 987 decedents, 514 were males, and 473 were females; being about 92 female decedents to every 100 male decedents.

For the period of twenty years (1866-1885) there were nearly 124 females to every 100 male decedents from consumption, and a very considerable excess every year since, excepting in 1891, 1893, 1897, 1898, and 1900.

Parentage.—There were 324 decedents of native parentage, and 663 of foreign; a proportion of 205 of foreign parentage to every 100 of native.

Season.—The largest number of deaths, 104, occurred in April; the next largest, 97, in January; the smallest, 65, in November.

The number in each quarter of the year was as follows:

First Quarter 264	Third Quarter 237
Second Quarter 258	Fourth Quarter 298
<del>-</del>	Autorom
First half 522	Second half
. Whole year	087

Ages.—During 1900, of the 987 decedents from consumption, 261, or more than one-quarter, were between the ages of 20 and 30; and 192, or more than one-fifth, were between the ages of 30 and 40.

In order to show more concisely the relation of age to mortality from consumption, during 1900, the following age periods and numbers are presented:

Under 10 years of age.	. 165
Between 10 and 20 years	
Between 20 and 30 years	. 261
Between 30 and 40 years	192
Between 40 and 50 years	. 137
Between 50 and 70 years	. 142
Over 70 years	16
Not stated	. 1
Total	1157

The following Table shows the total deaths from all reported known causes, with the number and percentage of deaths from consumption of the same, in each of the large divisions of the State, and in the whole State, in each of the lust eighteen years, and also the aggregate for a period of forty years, from 1861 to 1900, inclusive:

# CONSUMPTION.

# STATISTICS BY COUNTIES.

NUMBER AND PERCENTAGE,

FORTY YEARS.

TABLE LXX.—CONSUMPTION.—Number, Locality, and Percentage,

COUNTIES.	1889.	1851 1861	1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1898, 1899, 1900,	1886.	1881.	1888.	1889.	1890.	1891.	892. 1	S93.	894.	895.	896.		898.	899. 1	4	Total 40 years, 1861-1890.
BRISTOL COUNTY. Total deaths, stated causes.	197	199	185	1251	217	251	208	253	239	232	722	300	256	950	230	212	549	596	2,578
Consumption	19	51	15	÷ ;	20	85	50	31	17	66	18	10	65	27	155	50	₹3.	30	872
Percentage	9.64	9.64 10.50	6.48	6.48 10.35	$9.22\ 11.15$	11.15	9.62 11	11.85	7.11 12.	20	7.93	5.00 11	1.33 12.	27	5.65 13.68		9.64 10.14	.14	11.51
KENT COUNTY. Total deaths, stated causes.	885	268	25. 20.5 20.5	385	949	408	454	014	500	508	575	574	521	813	595	513	572	902	13,820
Consumption	99	50	45	37	50	169	45	se	1.7	51	55	46	7.0	50	36	140	02	46	1,837
Pereentage	13.78	13.43	15.78 13.43 12.70 11.20	11.20	9.91 13.44	13.44	9.84	8.08	9.40	8.53	9.63	8.01 10	0.361	.36 10.21 10		28 10.53 12	. 24	6.52	13.29
Newport County. Total deaths, stated causes.	†01	<del>1</del> 03	408	665	435	458	077	470	597	290	206	516	487	55 52 52	507	491	561	809	15,438
Consumption	50	65	17	5.0	7	65	26	51	51	45	35	10	000	99	55	09	50	55	1,819
Percentage	13.72	13.72 10.67 11	11.52	.52 13.16	9.19	1.00	8.41 10.85	68.01	8.51	7.63	6.92	8.91 12	2.11 12	2.411	.41 10.85 12.32		8.91	8.55	8.49
PROVIDENCE COUNTY.* Tolal deaths, stated causes.	1,656	1,723	1,918	2,087	2,345	2,465	2,286	9,874	2,341	2,632	2,634	2,536	2,796 2,826	2,826	2,646	2,381	2,543	3,080	65,664
Consumption	257	248	10 100	276	546	273	257	305	236	265	259	242	271	202	283	307	585	60	8,949
Percentage	15.52 14.13 14.	14.13	14.20	13.05	67.01	11.07	.20 13.05 10.49 11.07 11.24 12.84 10.00 10.07	13.84	0.001		9.83	9.54	9.33 1	0.331	0.70	9.33 10.33 10.70 12.89 13.25 10.81	3.251	0.81	13.63

\* Exclusive of Providence city.

Table LXX.—CONSUMPTION.—Number, Locality, and Percentuge.—Concluded.

10		1-	10		10	10	7.		10	σ.	22
Total 40 years, 1861-1900.	81,560	11,877	14.56		11,065	1,635	14.78		195,125	26,989	E. S
	3,665	984	5. 5. 5. 5.		13.5	7	9.30		8,790	0. 1.X.0.	<u> </u>
	3,155	45.5	4.341		Sign	66	0.90		4,436	52.6	3.07
1898.	921	40.5	3.861		367	32	8.45 10.90, 9.20		3,885	3.00	21
1897.	2,796	77	2.201		:21	000	8.09		7.085	111	0.97
1896.	988	292	15.49		381	3.5	9.19		7,475	846	1.35.
1895.	3,055	304	_ 68.51 _ 190 =		368	22	8.82 8.98 8.70 9.19		1,486	268	11::11
1894.	2,878	325	1.29	-	+01	92	8.98		7,105	705	9.92
1893.	3,127	828	10.49		306	21	£ .		7,372	21	9.79
1898	2,950	3 <del>1</del> 5	1.59		366	61	7.38		7,368	159	10.30
1881	2,615	347	13.19		208	7			6,586	140	11.18
1890.	2,859	394	13.69		316	30	88.01		6,891	855	67.21
1889.	9, 495	315	12.55		100	6.5	15.68		6,220	177	11.61
1888.	2,644	:362	13.66		368	50	13.58		6,594	800	12.13
1887	2,630	323	12.53		351	9†	13.10		6,321	710	11.19
1886.	2,841	368	15.65		331	5.9	17.52		5,798	826	14.12
1885.	2,157	3.5 3.4 3.4	16.10		307	56	17.93		5,330	12.	7.4.
1883, 1884, 1885, 1886, 1887, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1890,	2,927 2,157 2,841 2,630 2,644 2,495 2,850 2,615 2,950 3,127 2,878 3,055 2,938 2,796 2,921 3,153 3,665	7.	15.43		627	16	16.28		5,009	589	14.34
18883.	35.55	196	$ 15.48 \ 15.49 \ 10.29 \ 12.90 \ 12.49 \ 11.29 \ 12.90 \ 12.49 \ 11.24 \ 12.20 \ 12.86 \ 14.34 \ 13.26 \ 13.26 \ 12.20 \ 12.20 \ 13.24 \ 13.26 \ 12.20 \ 12.20 \ 13.24 \ 13.26 \ 12.20 \ $		508	35	15.40		5,096	166	15.03
COUNTIES.	PROVIDENCE CITY, Total deaths, stated causes: 2,351	Consumption	Percentage	Washington County.	Total deaths, stated causes.	Consumption	Percentage	Whole State.	Total deaths, stated canses. 5,096 5,099 5,330 5,798 6,321 6,394 6,229 6,891 6,586 7,368 7,372 7,105 7,489 7,475 7,085 6,885 7,436 8,790	Consumption	Percentage
COUNT	PROT Total dea	Consump	Percenta	Washi	Total des	Consump	Percenta	11	Total des	Consump	Percenta

### TABLE LXXI.

Mortality in the State from Consumption, with the Percentage of the Whole Number of Deaths, from all causes, and the Sex. Parentage, and Locality, in the Aggregate of Different Periods, 1866-1900.

	<u>+</u>		SE.	x	PAREN	TAGE.	]	DIVISIO	ons of	THE S	TATE.	
YEARS.	Total Deaths from Consumption,	Per cent.	Males,	Females.	Native,	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870	2,718	17.66	1,244	1,474	1,567	1,151	122	231	219	891	1,051	204
1871-1875	2,883	14.03	1.267	1.616	1.504	1,379	94	213	163	953	1,234	226
1876-1880	3.271	14.66	1,435	1,836	1,473	1,798	104	194	188	1,048	1,498	239
1881-1885	3.729	14.40	1,692	2,037	1,427	2,302	113	208	242	1,222	1,751	193
1886	826	14.12	382	444	308	518	23	43	57	276	368	59
1887	710	11.19	312	398	266	414	20	34	41	246	323	46
1888	<u>&gt;</u> 00	12.13	391	409	284	516	28	55	32	273	362	50
1889	727	11.61	356	371	239	488	20	45	37	267	315	53
1890,	852	12.29	422	430	280	572	31	38	51	305	394	33
1886-1890	3,915	12.24	1,863	2,052	1,377	2,538	122	215	218	1,357	1,762	241
1891	740	11.18	380	360	218	-192	17	47	51	236	347	42
1892	759	10,26	360	399	219	510	29	51	45	265	312	27
1893	722	9.72	364	358	230	492	18	55	35	259	328	97
1894	705	9.85	337	368	214	491	10	46	46	212	325	36
1895	839	11.13	399	-117	284	555	29	51	59	271	394	33
1591-1895,	3,765	10.41	1.833	1,932	1,225	2,540	103	258	236	1,273	1,736	174
1896	816	11.27	-109	437	273	573	27	59	66	292	367	35
1897	777	10.93	395	382	269	508	13	55	55	283	341	30
1898	886	12.83	-160	426	272	614	29	54	60	307	405	31
1~99	972	13.03	478	494	316	656	21	70	50	337	452	39
1900	987	11.19	514	478	321	663	30	46	59	333	486	40
1896-1900	4,468	11.82	2.256	2.212	1,451	8.011	123	281	283	1,552	2,051	175
Total, 25 years	21.749	13.02	11,590	13, 159	10.027	11.722	781	1,598	1,549	8,296	11,083	1,442

<sup>\*</sup> Exclusive of Providence city.

## Consumption. Proportion of Deaths to Population.

The proportion of deaths from consumption to the *population* in the different localities of the State, during the last fifteen years, may be seen in the following summaries:

### For five years, 1886 to 1890, inclusive.

	Persons.	In every 1,600
	One Death to every	of Population.
Bristol County	or.	2.09
Kent County	569or.	1.85
Newport County		1.48
Providence County*	or.	1.91
Providence City	or.	2.82
Washington County	497	2.10
Whole State		2.40

### For five years, 1891 to 1895, inclusive,

	Persons,	ln every 1.000
	One Death to every	of Population.
Bristol County	or	1.74
Kent County	577or	1.73
Newport County	647or	1.58
Providence County*	537	1.91
Providence City	413or	
Washington County		1.34
Whole State	or	2.02

### For five years, 1896 to 1900, inclusive.

	Persons,	In every 1,000
	One Death to every	of Population
Bristol County		1.86
Kent County		1.77
Newport County	562or	1.78
Providence County*	487	
Providence City	or	2.54
Washington County		39
Whole Stafe		2.17

<sup>\*</sup> Exclusive of Providence city.

### 1898,

- Pe	ersons,	In every 1,000
One dea	th to every	of Population.
Bristol County	486or	2.06
Kent County	.613oror	1.63
Newport County	.580oror	1.89
Providence County Towns	.539oror	1.85
Central Fails	.602or	1.66
Pawtucket	.508or	1.97
Providence City	.381oror	2.62
Woopsoeket	.400oror	2.50
Washington County	.\$20oror	1.22
Whole State	468or	2.14
	4.000	
	1899.	
Pe	ersons,	In every 1,000
	th to every	of Population.
Bristol County		
Kent County		
Newport County1		
Newport City		
Providence County Towns		
Central Falls.		
Pawtucket		
Providence City		
Woonsocket		
Washington County		
Whole State	. 435	2.30
	1900,	
	rsons,	In every 1,000
	th to every	of Population.
Bristol County		•
Kent County		
Newport County		
Newport City		
Providence County Towns		
Central Falls.		
Pawtneket		
Providence City		
Woonsocket		
Washington County		

There was an increase in the mortality from consumption, in 1900, as compared with the preceding year, in numbers, but not in proportion to the population.

#### CROUP.

There were 18 decedents from croup, in 1900, as against 11 in 1899.

Sex.—Of the 18 decedents from croup, in 1900, there were 9 males and 9 females, a proportion of 100 males to each 100 females.

Parentage.—There were 6 decedents of native parentage, and 12 of foreign parentage. The proportions were in the ratio of 200 of foreign to each 100 of native parentage.

Age.—There were 16 of the decedents under 5 years of age, and 2 of 5 years and under 10.

#### Season.-

First Quarter	11	Third Quarter	1
Second Quarter	3	Fourth Quarter	3
			_
First half	14	Second half	4
Whole year			

The following Table will exhibit various facts in relation to mortality from croup for thirty-five years:

TABLE LXXII. Mortality in the State from Croup, from 1866 to 1900, inclusive.

	aths,		SE	x.	PAREN	TAGE.		DIVISI	ONS OF	THE	STATE.	
YEARS.	Number of Deaths.	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870	227	1.47	112	115	96	131	6	13	19	82	99	
1871-1875	367	1.79	198	169	164	203	13	30	13	131	169	1
1876	102	2.61	50	52	42	60	1	6		26	65	
1877	95	2.23	48	47	34	61	4	3	1	47	40	
1878	93	2.20	45	48	43	50	14	3	7	25	39	
1879	96	2.28	58	38	40	56	3	6	15	25	43	
1880	66	1.45	32	34	27	39	3	3	4	20	30	
1876-1880	452	2.03	233	219	186	266	25	21	27	143	217	1
1881	101	2.16	45	56	38	63	2	6	4	38	49	
1882	77	1.60	41	36	32	45	1	2	6	33	32	
1883	71	1.40	32	39	33	38	1	6	4	25	35	
1884	80	1.55	40	40	32	48	2	11	4	29	34	
1885	94	1.74	45	49	42	52	4	8	6	46	28	
1881-1885	423	1.63	203	220	177	246	10	33	24	171	178	
1886	90	1.53	45	45	39	51	2	18	12	24	32	
1887	113	1.79	58	55	43	70	9	12	4	43	39	
1888	79	1.19	43	36	34	45	4	3	7	34	27	
1889	80	1.28	37	43	24	56	3	15	1	27	33	
1890	83	1.19	53	30	28	55	2	14	2	32	31	
1886-1890	445	1.39	236	209	168	277	20	61	26	160	162	1
1891	67	1.46	40	27	17	50	1	11	11	27	16	
1892	89	1.20	52	37	44	45	1	10	21	21	33	
1893	50	.67	29	21	13	87	4	11	8	25	7	
1891	32	.45	16	16	10	22	1	7	2	15	7	
1895	30	.40	14	16	9	21		6	4	11	9	
1891-1895	268	.84	151	117	98	175	7	45	41	99	72	
1896	21	.32	16	8	5	19		-1		12	8	
1897	17	.24	11	6	-1	13		8		5	4	
1898	9	.13	-4	5	3	6		2		- 4	2	
1899	11	.15	3	8	1	7			2	5	4	
1900	18	.20	9	9	6	12		-4		-4	9	
1896 1900	79	.21	43	36	22	57		18	2	30	27	
Total, 85 years	2,261	1.19	1,176	1,085	906	1,355	81	221	152	816	924	

<sup>\*</sup> Exclusive of Providence city.

#### DIARRHOLA AND DYSENTERY.

There were 112 decedents from diarrhoea and dysentery, in 1900. This number represents 1.3 per cent. of all causes, and a proportion of .26 to every 1,000 of the population.

Sex.—Of the 112, 49 were males and 63 were females, or a proportion of 78 males to every 100 females.

Parentage.—There were, of the 112 decedents, 48 of native parentage and 64 of foreign parentage, or a proportion of about 133 of foreign parentage to every 100 of native.

Age.—There were 42 of the decedents from diarrhæa and dysentery under 5 years of age, and there were 53 over 50 years of age, leaving 17 for all the 45 years between 5 and 50.

Locality.—Of the 112 decedents, 71 were in Providence county; 18 in Kent county; 9 were reported from Washington county, 8 from Newport county, and 6 from Bristol county.

Season.—Ninety-one of the deaths from diarrhœa and dysentery occurred during the months of July, August, September, and October.

The following Table will show the deaths from diarrhoa and dysentery, with the percentage, sex, parentage, etc., for each of 35 years, beginning with 1860.

Table LXXIII.

Mortality in the State from Diarrhaa and Dysentery, 1866 to 1900, inclusive.

	eaths.	earths.			PARES	STAGE,	DIVISIONS OF THE STATE.							
YEARS.	Number of Deaths	Per cent.	Males,	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.		
5 years, 1866-1870	677	4.40	353	324	353	354	26	46	89	215	254	47		
1871-1875	580	2.60	317	263	305	275	27	46	23	183	289	12		
1876	122	2.96	66	56	53	70	3	6	2	41	65	5		
1877	142	3.19	64	78	73	69	8	6	9	54	55	10		
1878	93	2.09	42	51	51	42	5	8	2	34	39	5		
1879	97	2.17	48	49	47	50	9	6	10	27	42	3		
1880	98	2.03	49	49	50	48	4	6	10	32	43	4		
1876-1880	552	2.47	269	283	273	279	29	32	33	188	248	27		
1881	119	2.37	56	63	54	65	2	4	3	47	57	6		
1882	158	3.11	75	83	69	89	2	4	28	57	64	3		
1883	182	3.45	86	96	88	94	7	7	16	74	75	3		
1884	153	2.98	74	79	69.	84	10	5	11	66	56	5		
1885	120	2.23	61	59	51	69	7	6	6	62	35	4		
1881-1885	732	2.89	352	380	331	401	28	26	64	306	287	21		
1886	159	2.72	64	95	70	89	7	11	1	73	59	8		
1887	199	3.11	137	92	70	129	6	16	4	92	72	9		
1888	157	2.31	69	88	97	60	6	8	3	54	71	15		
1889	159	2.54	73	86	67	92	1	12	17	71	50	8		
1890	182	2.62	84	98	74	108	5	9	22	77	63	6		
1886-1890	856	2.68	397	459	378	478	25	56	47	367	315	46		
1891	143	2.16	69	74	51	92	4	15	13	48	58	5		
1892	199	2.69	100	99	82	117	6	14	8	76	89	6		
1893	159	2.14	79	80	56	103	5	14	7	60	66	7		
1891	121	1.73	61	63	36	88		8	4	59	48	10		
1895	101	1.31	38	63	40	61	6	9	3	41	37	5		
1891-1895	726	2.01	847	379	265	461	21	60	35	281	293	83		
1896	89	1.18	49	40	40	49	5	5	8	39	28	7		
1897	107	1.50	48	59	37	70	1	14	7	41	36	8		
1898	98	1.42	58	45	33	65	2	11	5	32	40	5		
1899	111	1.47	49	62	34	77		9	11	55	86	4		
1900	112	1.27	49	63	48	64	6	18	- 8	-10	81	9		
1896-1900	517	1.37	248	269	193	325	11	60	39	207	167	83		
Total, 35 years	4,640	2.41	2,283	2,357	2,067	2,578	167	326	330	1,750	1,848	219		

<sup>\*</sup> Exclusive of Providence city,

### DIPHTHERIA.

The number of deaths from diphtheria, in 1900, was 190, which was 104 more than in 1899, or an increase of 1 per cent.

This number represents 2.15 per cent. of all causes, or a proportion of .44 to every one thousand of the population.

Sex.—Of the 190 decedents, 106 were males, and 84 were females.

Parentage.—There were 76 of native, and 114 of foreign parentage, or a proportion of about 150 of foreign parentage to every 100 of native.

Season.—There were 46 deaths from diphtheria in the first quarter, 30 the second quarter, 27 in the third quarter, and 87 in the fourth quarter.

Age.—There were 127 deaths under 5 years of age, 49 between 5 and 10, 6 between 10 and 15, 3 between 15 and 20, and 5 above 20 years of age.

Locality.—Of the 190 decedents, 136 were in Providence county, 5 in Bristol county, 22 in Kent county, 15 in Newport county, and 12 in Washington county.

The following Table shows the mortality in the State from diphtheria for thirty-five years, beginning with 1866, also the percentage of deaths, the sex, parentage, etc.:

TABLE LXXIV. Mortality in the State from Diphtheria, 1866 to 1900.

	er of uses,	aths,		SES	x	PAREN	TAGE.	D	IVISIO:	NS OF	THE ST	FATE.	
YEARS.	Whole Number of Deaths, all causes.	Number of Deaths, Diphtheria.	Per eent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870	15,391	181	1.18	83	98	103	78	5	28	30	40	44	34
1871-1875	20,540	242	1.18	118	124	154	88	4	35	50	54	105	24
1876	4,116	159	3.86	77	85	69	90	1	2	9	29	111	7
1877	4,450	492	11.56	239	253	233	259	12	44	2	122	295	17
1878	4,441	435	9.80	224	211	201	234	21	29	23	106	245	11
1879	4,472	259	5.79	121	138	143	116	7	19	20	95	106	12
1880	4,829	152	3.40	73	79	75	77	3	6	2	63	61	17
1876-1880	22,308	1,497	6.71	734	763	721	776	44	100	56	415	818	64
1881	5,016	216	4.63	106	110	118	98	10	16	8	58	116	13
1882	5,074	101	1.99	48	53	55	46		3	4	29	48	17
1883	5,282	95	1.88	39	56	45	50	1	7	3	26	54	4
1884	5,141	119	2.31	65	54	47	72	8	1	9	39	58	4
1885	5,389	99	1.83	47	52	48	51	5	5	6	39	37	7
1881-1885,.	25,902	630	2.43	305	325	313	317	24	32	30	186	313	45
1886	5,849	228	3.90	98	130	101	127	20	21	23	64	98	2
1887	6,340	287	4.53	185	152	101	186	15	11	4	114	108	35
1888	6,594	191	2.86	87	104	79	112	13	3	9	58	98	10
1889	6,259	184	2.93	80	104	89	95	3	10	11	56	97	7
1890	6,934	211	3.04	112	99	93	118	1	9	16	86	94	5
1886-1890	31,976	1,101	3.44	512	589	463	638	52	54	63	378	495	59
1891	6,620	102	1.50	52	50	48	54	2	7	6	40	47	
1892	7,396	89	1.20	48	41	41	45	1	1	8	23	39	17
1893	7,410	157	2.11	75	82	57	100	1	11	13	67	65	
1894	7,160	133	1.86	74	59	61	72		3	8	72	47	3
1895	7,585	340	4.51	166	174	145	195	3	7	6	221	94	9
1891-1895	36,151	821	2.24	415	406	855	166	7	29	41	428	593	29
1896	7,504	283	3.77	149	131	120	163	5	19	G	109	140	4
1897	7,110	231	3.25	120	111	84	147	3	19	8	111	86	4
1898	6,905	93	1.85	51	42	31	59		12	5	33	40	4
1899	7,458	86	1.15	35	51	31	55	1	10	4	28	40	9
1900	8,823	190	2.15	106	84	76	114	5	55	15	83	53	12
1896-1900	37,800	883	2.31	461	422	845	538	14	82	38	868	359	27
Total, 35 years.	190,068	5,855	2.82	2,628	2,727	2,454	2,901	150	860	278	1,859	2,426	282

<sup>\*</sup> Exclusive of Providence city.

### FEVER, MALARIAL.

The number of deaths, during 1900, from diseases classed as fever malarial, was 21. The number in 1899 was 30; in 1898 was 31; in 1897 was 44; in 1896 was 42; in 1895 was 29; in 1894 was 26; in 1893 was 20; in 1892 was 36; in 1891, 31; in 1890, 42; in 1889, 40; in 1888, 71; in 1887, 85; in 1886, 44; in 1885, 30; 1884, 25.

Sex.—Of the 21 decedents from malarial fevers, in 1900, 12 were males and 9 were females.

Parentage.—There were, of the 21 decedents from malarial diseases, 13 of native parentage, and 8 of foreign.

Season.—The deaths from malarial diseases occurred in the different seasons of the year as follows:

First Quarter	1	Third Quarter	8
Second Quarter	7	Fourth Quarter	5
First half	8	Second half	13
Whole year		21.	

Age.—The number of decedents in the different periods of life was as follows:

Under 5 years of age	6
From 5 to 20 years of age.	4
From 20 to 40 years of age	5
From 40 to 60 years of age	2
30 and over	4
Total	-

Localities.—Bristol county, 4; Kent county, 1; Newport county, 2; Providence county, 14; Washington county, 0.

# FEVERS, TYPHOID, ETC.

The number of decedents whose deaths were returned as having been caused by "fever" of some form, not malarial nor cerebrospinal, was 127. Deaths from puerperal fever are not included.

The following Table exhibits, for each of the last thirty-five years, the number and the percentage, and the sex and parentage of the decedents from fevers returned as from typhoid, and the number in each division of the State.

TABLE LXXV.

2,388 | 2,562

Total, 35 years. . 4,950

2.6

2,552 2,398

<sup>\*</sup> Exclusive of Providence city.

During 1900, of the 127 decedents from typhoid fever, there were 70 males and 57 females, a proportion of about 123 males to every 100 females. The difference in the sexes of the mortality from fevers is not usually very great.

During the period of thirty-five years, 1866 to 1900, inclusive, the proportions of the sexes of the decedents from "fever," in the State, were 94 females to every 100 males.

Parentage.—There were 51 decedents from enteric fever, of native parentage, in 1900, and 76 of foreign parentage, a proportion of 60 of foreign and 40 of native in every 100 decedents.

#### Season.—

First Quarter	17	Third Quarter	30
Second Quarter	28	Fourth Quarter	53
First half	45	Second half	82
Whole year		127	

The following Table shows the number of decedents from fevers, in each division of ages, in each of the last thirty-five years, in the State of Rhode Island:

Table LXXVI.

Mortality from Typhoid Fever in Age Periods.

	Periods of Life.												
YEARS.	Under 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 and over.	Not stated.		
866	23	10	21	26	21	16	9	14	10				
867	17	6	23	33	12	11	8	4	2	2			
868	10	7	10	21	8	8	10	5	5				
869	10	8	14	28	9	7	9	8	6	2			
870	26	13	31	46	19	25	8	8	8	2			
871	13	10	20	28	18	16	9	4	5	2			
872	17	18	34	54	20	9	12	11	3	1			
873	27	12	34	31	25	13	13	7	8	2			
874	10	14	26	32	9	5	10	3	6	2			
875	23	14	19	43	18	10	10	6	4		 		
876	21	10	15	24	14	9	6	16	6	3			
877	22	13	18	36	20	8	5	7	2	2			
878	17	16	27	47	13	11	12	2	3	2			
879	19	7	14	26	15	6	3	12	8	3			
880	25	12	24	43	23	12	10	5	3				
881	25	9	19	29	14	11	9	12	11	4			
882	24	22	44	69	27	14	9	10	9	1			
883	36	25	46	75	31	12	11	10	8	2			
884	24	13	19	47	22	9	12	10	5	3			
885	35	12	16	25	26	11	11	12	6	4			
886	29	9	25	41	20	14	17	8	5	1			
887	24	8	16	31	16	10	5	8	4	4			
888	27	27	42	75	29	16	12	3	4				
889	18	12	29	41	18	8	9	5	3	ļ			
890	13	11	13	35	14	5	6	6	4				
891	12	10	25	50	26	10	7	6	2	,			
892	10	11	18	42	20	15	10	6	1				
893	. 6	7	16	43	15	10	10	6	2	ļ			
894	18	8	31	57	21	12	6	3	2				
895	10	9	10	56	15	7	9	5	4				
896	10	3	18	35	13	16	6	7	5				
897	6	4	7	22	11	9	3	3	1				
898	8	5	8	23	21	9	1	1					
899	17	15	5	19	17	10	2	1	2	1			
900	13	9	17	41	23	12	6	2	1				
'otal, 35 years	645	399	754	1,377	643	386	295	236	158	43			

TABLE LXXVII.

Comparative Exhibit of the Percentage of Deaths from Typhoid Fever to Total Deaths from specified causes, in Six New England States, for twenty-five years, 1876 to 1900.

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668	51	1-	67.	1.9	÷:		
8981	1	s:	6:	1-	11	a:	
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296		1-	1.9 1.3		10	<u></u>	-
	1-1-	<u>_</u>			1.4 1.5 1.3	<u>~</u>	-
94 18	61 62 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2.5 1.9 1.7 1.8 1.9	1:7	2.0 1.7 1.6 1.3 1.7	1.6 1	2.0 1.8 1.8 1.8 1.5 1.1 1.3 1.3	-
93		9.	7:	01 10 01	<u>r:</u>	- x	-
21 8	8 1	61 C1	92	01 			
<u></u>	2.2		2.4 1.8 1.4				_
		:			1.9 1.8 1.7 1.5	61	
1896	-		2.4 1.9	<u> </u>			
1888	3.6 2.2 1.5			2.2 2.7 1.6 1.6 1.4	61 63	21 21	
1888	9.00	:	61	6.1 6.1	63 63	61 61	
1887	0.€	:	2.1	2.5	63 63	63 63 63 63	
1886	2.9	:	3.0	83 73	20.1	01 01	_
288	2.9 2.9	:	31 61	6. 6.	0.5	1.1	
884	?i ee	:	5.1 5.1	0:0	61 4:	2.5 1.1	_
88	, <del>,</del>	:	:	35 	0.1 0.5	22	
882	1-	<u>:</u>	- <u>:</u>	4.	31 G:	3.1	
881	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	÷	:	70 70	9.5	61	-
880	2.6	<u> </u>	:	e5 7:5	61	61	-
379	1-	:	· ·	01 01	6:	1.8	-,
378	7	· · · · · · · · · · · · · · · · · · ·	:	4.	63 63	21	-
	3.0 3.4	:	:	3. S:	51	6.5	-
1876 1877 1878 1880 1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1895 1896 1897 1898 1890	9.0	:	:	6i 4	10	9.	-
<u>«</u>	-	:	:	· ·			
	Rhode Island	:	New Hampshire	:	Massachusetts	Connecticut	
STATES.	nd.		pshin	:	etts.	:	
TA	Isla		aml	nt	hus	ticu	
7.	ode	Maine	w H	Vermont	ssac	nnec	
11	32	Ma	Ne	Ve	Ma	C0.	

#### DISEASES OF THE HEART.

The number of decedents from the various forms of diseases of the heart, as reported in 1900, was 701. The number is 53 greater than that of 1900.

This number represents 7.95 per cent. of all causes, and a proportion of 1.63 to every 1,000 of the population.

Sex.—There were 319 male decedents, and 382 female decedents; a proportion of about 84 males to every 100 females, but these proportions, although varying from year to year, are not greatly different.

Purentage.—Of the 701 decedents from diseases of the heart, in 1900, there were 319 of native parentage, and 382 of foreign, a proportion of about 84 of native parentage to every 100 of foreign. Except in 1892, 1893, 1896, and 1900, it has been the invariable rule of the whole period of registration that the native population is more subject to heart disease than the foreign.

The following Table exhibits, for each of the last thirty-five years, 1866 to 1900, inclusive, the number and percentage, and the sex and parentage, of the decedents from diseases of the heart, and the number of the same in each division of the State:

Table LXXVIII.

Mortality from Diseases of the Heart, 1866 to 1900, inclusive.

	hs.	-	SE	Χ.	PAREN	TAGE.		DIVISIO	ONS OF	THE	TATE.	
	eat				1							
YEARS.	Number of Deaths	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870	590	3.83	308	282	395	195	22	48	48	184	262	26
1871-1875	922	4.49	458	464	595	327	21	46	S2	248	465	60
1876	166	4.03	86	80	109	57	9	11	10	38	86	12
1877	182	4.09	94	58	110	72	3	~	9	57	93	13
1878	166	3.73	88	78	109	57	5	11	15	38	83	14
1879	202	4.78	114	88	127	75	8	20	16	38	111	9
1880	231	5.03	125	106	146	85	9	2	59	59	104	9
1876-1880	947	4.25	507	440	601	346	34	70	79	230	477	57
1881	264	5.65	131	133	154	110	9	21	24	73	121	16
1882	255	5.31	116	139	162	93	8	16	23	55	142	11
1883	325	6.20	167	158	179	146	8	27	30	70	172	18
1884	285	5.60	135	150	163	122	6	16	25	87	139	12
1885	349	6.48	162	187	198	151	13	27	25	94	159	31
1881-1885	1,478	5.71	711	767	856	622	44	107	127	379	733	88
1886	330	5.20	152	178	184	146	12	20	18	82	168	30
1887	406	6.40	205	201	240	166	7	21	36	123	193	26
1888	436	6.56	196	240	240	196	11	22	40	122	210	31
1889	460	7.35	233	227	258	202	19	31	39	143	199	29
1890	405	5.84	222	183	219	186	15	49	27	114	172	28
1886-1890,	2,037	6.37	1,008	1,029	1,141	896	64	143	160	584	942	144
1891	480	7.25	248	232	244	236	21	37	38	137	210	37
1892	506	6.84	260	246	252	254	22	47	48	163	200	26
1893	535	7.19	264	271	264	271	20	43	30	174	235	30
1894	476	6.65	251	225	246	280	16	32	41	161	192	34
1895	535	7.10	260	275	275	260	14	41	54	180	210	36
1891-1895	2,532	7.01	1,283	1,249	1,281	1,251	93	200	211	815	1,050	163
1896	556	7.41	294	262	266	290	19	40	38	189	231	30
1897	570	8.02	305	265	295	275	9	38	42	200	230	51
1898	549	7.95	295	254	282	267	17	42	44	171	237	38
1899	648	8.68	314	334	334	314	20	56	72	190	267	43
1900	701	7.95	319	882	319	382	22	49	57	241	284	48
1896-1900	3,024	8.00	1,527	1,497	1,496	1,508	57	225	253	991	1,249	219
Total, 35 years	11,530	6.0%	5.802	5,728	6,365	5.165	365	839	960	3,431	5,178	757

<sup>\*</sup> Not including Providence city.

Sex.—Of the 11,530 persons deceased from diseases of the heart, in the last thirty-five years, 5,802 were males, and 5,728 were females; or 101 males to each 100 females.

Parentage.—Of the 11,530 decedents, during thirty-five years, 6,365 were of native parentage, and 5,165 of foreign. The proportions would, therefore, stand as follows: To every 100 of foreign parentage there were about 123 of native; or about 55 native and 45 of foreign parentage in every 100 deaths. This difference has been gradually diminishing. In 1892 there were 2 more deaths of foreign than of native parentage; in 1893 there were 7 more deaths of foreign than of native parentage; in 1896 there were 24 more deaths of foreign than of native parentage; in 1897, however, there were 20 more deaths of native than of foreign parentage; in 1898 there were 15 more deaths of native than of foreign parentage; in 1899 there were 20 more deaths of native than of foreign parentage; but in 1900 there were 63 more deaths of foreign than of native parentage.

Diseases of the heart rank third in the order of causes in 1900.

The following Table shows the number of decedents from diseases of the heart, in each divisional period of life, in each of the last thirty-five years:

Table LXXIX.

Mortality from Diseases of the Heart, in Age Periods.

				l'ERIO1	os of L	IFE.			
YEAR.	Under 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 and over.	Not stated.
866	18	8	14	17	10	23	21	4	
867	11	11	10	13	22	16	27	4	
868	15	5	13	11	14	28	25	5	
869	21	4	14	18	20	22	21	7	
870	19	6	11	13	20	21	23	3	-
871	9	12	10	19	23	36	28	6	
372	27	12	22	19	31	36	29	13	
873	19	11	28	18	25	35	42	9	
874	20	16	26	21	27	50	40	12	
875	14	16	25	20	32	29	41	9	
876	14	10	15	19	20	38	39	10	
377	15	11	20	18	27	45	33	13	
578	16	8	18	16	26	36	35	11	
379	19	9	13	25	33	51	36	16	
380	15	10	18	23	38	-49	49	28	
381	35	13	26	33	37	49	53	21	
882	22	17	24	25	36	51	61	17	
383	39	13	21	33	52	65	76	26	
884	15	25	21	35	45	61	50	32	
885	38	13	24	42	61	69	78	24	• • • •
886	39	18	28	38	52	68	69	18	
887	52	30	23	35	61	79	87	39	• • • •
388	39	25	30	54	84	97	74	33	
889	45	25	37	45	69	85	118	35	
390	34	15	24	53	69	78	96	36	
891	40	18	45	41	85	109	101	38	
892	54	21	32	59	93	111	104	31	
893	55	27	48	68	81	116	97	42	
895	40 33	28	36	64 57	69 82	102	102	35 51	
200	40	33	44	65		106	117	50	
397	40	34	46	68	98	145	117	49	
898	34	20	43	57	91	134	130	50	
899	23	28	37	77	111	153	169	48	
900	47	30	49	61	130	164	164	52	

The results of thirty-five years of registration, with record of ages of decedents from diseases of the heart, show, in periods of twenty years each of life, the following percentages:

Under 20 years of age	8.8 per cent.
Between 20 and 40	13.3 per cent.
Between 40 and 60	27.1 per cent.
Between 60 and 80	43.0 per cent.
Over 80	7.6 per cent.
Not stated	0.2 per cent.
Total	100.0 per cent.

It will be seen that 43 per cent. of all the deaths from diseases of the heart were of persons over sixty years of age, and under 80.

Diseases of the heart have acquired large importance as a cause of death. From 38.7 in every 1,000 deaths from all causes, in 1866, heart diseases gradually increased to about 73 in every 1,000 in 1899, and falling back to slightly less than 60 per 1,000 in 1890, and rising to 72.5 per 1,000 in 1891, and falling to 68.4 in 1892. In 1893 there were 71.9 deaths from heart diseases in every 1,000; in 1894, 66.5 deaths; in 1895, 71.0 deaths; in 1896, 74.1 deaths; in 1897, 80.1 deaths; in 1898, 79.5 deaths; in 1899, 86.9 deaths, and in 1900, 79.5 deaths in every 1,000.

#### Influenza.

The event, during the first four months of the year 1890, of a very extraordinary and perhaps unprecedented prevalence of a form of influenza, which was unlike that of ordinary occurrence in that it affected indiscriminately all the functions and nearly all the organs of the body, varying with the individuals attacked, and the re-appearance of the same, although in greatly lessened numbers, in 1891, warrants a continued notice not given previous to 1890 in the Registration Reports to the affection so named.

The disease was, in 1890, most largely confined to the respiratory passages, and resulted in a largely increased mortality from bronchitis and consumption. During 1891 the disease was equally as severe, affecting in a larger measure the brain and other nerve centres, and the direct mortality was even larger than that of 1890. The prevalence was largest during the second quarter of the year, and again in December.

The increase in December of 1891 was followed by a sudden augmentation in the first four months of the following year, 1892, the greatest number of deaths, 198, occurring in January of 1892. The total for 1892 was 336, or about twice as much as for either of the previous years. In 1893 there were 84 deaths reported as resulting from influenza. This was 251 less than in 1892. In 1894 there were 166 deaths from influenza reported, an increase of 95 per cent. from 1893, and a decrease of over 50 per cent. from 1892. In 1895 there were 115 deaths from influenza. In 1896 there were but 42 deaths from influenza. In 1897 there were 153 deaths from influenza. In 1898 there were 75 deaths from influenza. In 1899 there were 219 deaths from influenza. In 1900 there were 255 deaths from influenza.

Sex.—Of the 255 deaths from influenza, in 1900, 108 were males and 147 were females, a proportion of 73 males to every 100 females.

Parentage.—The parent nativity of the decedents was 120 of native and 135 of foreign.

Season.—Of the 255 deaths from influenza, during 1900, 74 occurred in the first quarter of the year, 168 in the second, 3 in the third, and 10 in the fourth quarter.

Age.—There were 16 under 5 years of age, 3 from 5 to 20 years, 23 from 20 to 40, 38 from 40 to 60, 121 from 60 to 80, 54 from 80 years of age and over.

The following Tables will show the proportionate nativity, sex, and locality of the disease.

The greatest mortality appears to be among females, there being 152 females to every 100 males. The parentage appears to be nearly equally divided between native and foreign, there being 104 foreign to 100 native.

The largest number of deaths occurred in Providence city, but this is not out of proportion to the proportionate number and density of population.

Referring to the age periods it will be seen that the greatest mortality occurred in the period from 70 to 80, there being 385 or 21.49 per cent. of the whole number of deaths from this disease. Taking the three decennials including 60 to 90 we have 919 deaths, or 51.30 per cent. of all by ages.

By season, the greatest number of deaths, 569, occurred in January; the next in number, 282, in April, followed by 278 in February, 227 in March, and 188 in December.

### Mortality in the State, from Influenza, 1890 to 1900, inclusive.

	ths.		SE	x.	PAREN	TAGE.		DIVISI	ONS OF	THE	STATE.	-
YEARS.	Number of Deaths.	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1890	168	2.42	72	96	68	100	. 6	14	12	61	70	5
1891	177	2.67	67	110	91	86	7	14	14	60	69	13
1892	366	4.54	142	194	170	166	11	27	13	115	144	26
1893	85	1.14	34	51	47	38	. 7	3	5	33	32	5
1894	166	2.32	62	104	88	78	6	9	15	48	75	13
1895	115	1.53	48	67	63	52	3	10	9	42	41	10
1896	42	.56	15	27	16	26	2	1	2	30	6	1
1897	153	2.15	52	101	72	81	3	6	3	72	64	5
1898	75	1.09	29	46	40	35	8	3	5	30	26	3
1899	219	2.94	82	137	104	115	9	6	14	94	80	16
1900	255	2.89	108	147	120	135	8	14	16	112	98	7
1890-1900	1,791	2.21	711	1,080	879	912	70	107	108	697	705	104

### Influenza by Age Periods, 1890-1900.

									-				
YEARS,	Under 1.	1 to 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 and over.	Not stated.
1890	14	18	4	8	14	22	18	17	19	17	11	5	1
1891	11	12		8	14	6	1-1	21	29	42	19	1	
1892	26	20	2	6	13	19	25	33	74	74	41	3	
1893	7	5	-ŧ	3	6	1	7	4	13	16	16	2	1
1894	6	14	2	5	11	6	20	12	32	37	17	4	
1895	14	10	1	5	8	6	9	10	16	24	9	3	
1896	1	3	2	1	1	2	5	4	13	6	6	1	
1897	11	1	2	5	2	10	10	22	22	38	25	5	
1898	12	-1	1	1	-1	6	5	8	7	13	8	6	
1899	27	15	3	4	11	13	13	26	24	58	23	7	
1900	9	7	1	2	14	9	13	25	56	65	54		
					-								
1890 1900	138	109	22	48	98	100	136	182	305	385	229	37	2
Per cent, of all ages for 11 years, 1890-1900	7.70	6.09	1.23	2.68	5.17	5.59	7.60	10.16	17.03	21.49	12.78	2.07	11

<sup>\*</sup> Exclusive of Providence city.

#### Influenza by Months, 1890-1900.

YEARS.	January.	February.	March.	April.	May.	June.	July.	Angust.	September.	October.	November.	December.	Toral.
1890	108	27	11	8	4	2	5		1	3	1	1	168
1891	4	3	1	55	19	19	2	2	2	4	1	98	177
1892	198	52	31	27	9	6		2	3	2	1	5	336
1893	5	1	2	19	12	4	1	2	1	1	1	36	85
1894	102	27	10	9	7	3	2	1	1		1	3	166
1895	12	20	43	16	ĩ	6	5				2	-1	115
1896	9	4	5	7	5	4	1	2	2	1		2	42
1897	26	67	29	11	4	3			2	2	3	6	153
1898	7	2	15	13	9	5	5		1		1	20	75
1899	93	59	27	16	7	1		3	1	2	2	s	219
1900	ă	16	53	134	26	8		3		1	4	5	255
1890-1900	569	278	227	282	109	61	15	15	14	16	17	188	1,791

#### Insanity.

There were 54 deaths from insanity, in 1900, a decrease of 12 from 1899. The percentage to the whole number of deaths was .61. These deaths occurred chiefly at the Cranston institutions, and in the Butler hospital.

Sex.—There were 29 male and 25 female decedents.

Parentage.—The number of native decedents from insanity was 33, and of foreign parentage 21.

Of the 54 deaths in 1900, there were 17 from dementia, 4 from acute mania, 8 from chronic mania, 8 from melancholia, and 17 from insanity.

Of the 17 deaths from dementia, the secondary cause given in 3 cases was Bright's disease; 1, endocarditis; 4, paralysis; 1 diarrhœa; 8 cases, no secondary cause given.

Of the 17 deaths from insanity, the secondary cause given in 4 cases was pulmonary tuberculosis; 1, Bright's disease; 1, cerebral embolism; 1, thermic fever; 2 innutrition and general emaciation; 8 cases, no secondary cause given.

Of the 12 deaths from mania, acute and chronic, the secondary cause given in 3 cases was Bright's disease; 3, pulmonary tuberculosis; 1, heart syncope; 5 cases, no secondary cause given.

Of the 8 deaths from melancholia, in 1 case the secondary cause was pulmonary tuberculosis; 1, uramia; 1, alcoholism; 1, kleptomeningitis; 1, exhaustion from bed-sores; 3 cases, no secondary cause given.

Secondary causes, with insanity in some form as a primary cause were as follows: Bright's disease, 8—dementia 3, insanity 1, mania, acute and chronic, 3, melancholia, 1; pulmonary tuberculosis 8—insanity 4, mania, acute and chronic, 3, melancholia, 1; thermic fever, 1—insanity; heart syncope, 1—mania, acute; embolism, 1—insanity; innutrition and general emaciation, 2—insanity; paralysis, 4—dementia; endocarditis, 1—dementia; diarrhœa, 1—dementia; klepto-meningitis, 1—melancholia; exhaustion from bed-sores, 1—melancholia.

The following Table shows the mortality in the State from insanity for thirty-five years, with percentage to deaths from all causes, sex, parentage, etc., from 1866 to 1900, inclusive:

TABLE LXXX.

### Mortality in the State from Insanity.

	eaths.		SE	х.	PAREN	TAGE.		DIVISI	ONS OF	THE	STATE,	
YEARS.	Number of Peaths	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County,	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870	72	.47	33	39	52	20		5	-4	7	55	1
1871-1875	106	.52	55	51	76	30	3	2	8	33	58	្
1878	12	.28	5	7	9	3	1	2	1	. 1	6	1
1877	19	.49	9	10	9	10		1		5	12	1
1878	22	.50	5	17	16	6			1	3	17	1
1879	17	.40	11	б	10	7				5	11	1
1880	19	.39	9	10	13	6		1	2	G	9	1
1876-1880	89	.39	39	50	57	32	1	4	4	20	55	- 5
1881	32	.63	15	17	22	10	1	1	3	10	16	
1882	23	.45	9	14	18	5		1		8	12	:
1883	29	.55	12	17	17	12	1	2		7	18	1
1884	36	.69	17	19	24	12	2	3		21	9	1
1885	35	.67	16	19	18	17			2	23	10	
1881-1885	155	.59	69	86	99	56	4	7	5	69	65	5
1886	49	.83	21	28	28	21	3	1	1	37	~	
1887	64	1.01	35	29	33	31	1		1	56		(
1888	43	.64	21	255	24	19	1	2		33	7	
1889	22	.35	14	8	12	10				14	8	
1890	30	.44	19	11	16	14	1	1	1	13	14	
1886-1890	208	.65	110	98	113	95	6	4	3	153	36	(
1891	21	.32	10	11	16	5		1		5	13	2
1892	27	.37	17	10	15	12	3	1		8	1.1	
1893	39	.53	14	25	13	26				30	9	
1894	49	.68	20	(21)	22	27	1	1		12.00 ≈ 1	18	2
1895	72	.96	36	36	44	28	3		1	41	27	
1891 1895	208	.57	97	111	110	98	ĩ	3	1	111	81	
1896	53	.70	28	25	22	31		2		40	11	
1897	103	1.45	53	50	51	52		3	1	.78	12	(
1898	82	1.19	41	41	37	45	3		5	60	10	7
1899	66	.88	37	20	33	33	15	2	1	55	5	
1900	54	.61	59	25	33	21	1	1	2	45	5	
1896 1900	358	.95	188	170	176	182	ĩ	8	9	278	-43	1:
Total, 85 years	1,196	.63	591	605	683	513	28	33	31	671	393	37

<sup>\*</sup> Exclusive of Providence city.

### DISEASES OF THE KIDNEYS.

There were 516 deaths returned, during 1900, with diseases of the kidneys assigned as the cause.

This number represents 5.8 per cent. of all causes, and a proportion of 1.20 to every 1,000 of the population.

Sex.—Of the 516 there were 240 males, and 276 females.

Parentage.—There were 275 of native parentage and 241 of foreign, or about 114 of native, to every 100 of foreign parentage.

Age.—Of the 516 decedents from kidney diseases, 9 were under 5 years of age, 23 from 5 to 20, 89 from 20 to 40, 166 from 40 to 60, 195 from 60 to 80, 33 80 and over, and 1 age unstated.

Diseases of the kidneys have largely increased in number, and much more largely in proportion, during the last thirty-five years.

During the ten years from 1866 to 1875, inclusive, the proportion of deaths from kidney diseases, to whole number of deaths from all causes, was but little more than one per cent., while during the ten years from 1886 to 1895, inclusive, the proportion was over four and one-half per cent.

The following Table will present various facts in relation to the mortality from diseases of the kidneys in Rhode Island, for thirty-five years, 1866–1900.

Table LXXXI.

Mortality in the State from Kidney Discases, 1866 to 1900, inclusive.

	eaths.		SE	х.	PAREN	TAGE.		DIVISI	ONS OF	THE	STATE.	
YEARS.	Number of Deaths	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870	135	.85	94	41	91	44	6	ĩ	25	23	66	8
1871-1875	295	1.41	167	128	187	108	11	11	17	67	172	17
1876	50	1.28	22	28	32	18	1	1	7	10	28	3
1877	67	1.57	40	27	35	32	2	1		14	49	1
1878	80	1.89	50	30	49	31	4	3	3	21	47	2
1879	79	1.88	51	28	44	35	1	3	1	23	43	8
1880	91	2.02	52	89	51	40	1	5	10	27	46	2
1876-1880	367	1.65	215	152	211	156	9	13	21	95	213	16
1881	79	1.69	40	39	47	32	~	5	4	14	48	1
1882	86	1.79	50	36	45	41	2	5	10	15	52	2
1883	129	2.43	72	57	74	55	5	2	17	37	60	s
1884	118	2.29	53	65	66	52	5	11	12	28	5-1	8
1885	159	2.97	92	67	86	73	8	10	17	31	88	5
1881-1885	571	2.20	307	264	318	253	27	33	60	125	302	24
1886	155	2.49	85	70	93	62	3	10	22	37	71	12
1887	169	2.66	92	77	90	79	5	6	16	43	92	ĩ
1888	213	3.23	102	111	122	91	10	10	24	46	115	8
1889	210	3.38	119	91	122	88	14	13	15	62	96	10
1890	229	3.20	116	113	109	120	15	8	21	59	116	10
1886-1890	976	3.05	514	462	536	440	47	47	98	247	490	47
1891	245	3.06	123	122	122	123	9	12	25	72	114	13
1892	258	3,49	135	123	127	131	9	11	24	70	128	16
1893	302	4.06	154	148	141	161	19	15	25	81	147	15
1894	313	4.37	152	161	161	1 19	25	20	33	81	136	18
1895	341	4.54	176	165	171	170	23	19	29	96	163	11
1891 1895	1,459	3.90	740	720	725	734	85	77	136	408	688	78
1896,	395	5.26	209	186	188	207	19	39	34	125	160	18
1897	387	5.44	198	189	185	202	21	19	30	129	164	21
1898	471	6.82	225	243	207	264	19	23	25	153	219	30
1899	477	6.40	241	236	215	262	23	30	33	148	1)(1) 4~1)	20
1900	516	5.85	240	276	275	241	16	19	25	186	236	34
1896-1900	2,216	5.94	1,116	1,130	1.070	1.176	101	130	147	741	1,002	125
Total, 35 years	6,049	3.18	3,153	2,896	3.138	2,911	283	318	504	1.701	2,933	310

<sup>\*</sup> Exclusive of Providence city.

#### DISEASES OF THE LIVER.

There were 100 deaths reported, in 1900, as having been caused by structural diseases of the liver.

This number represents 1.13 per cent. of all causes, and a proportion of .20 to every 1,000 of the population.

Of the 100 decedents, there were 56 males and 44 females, or 79 females to every 100 males.

There were 36 of native parentage, and 64 of foreign, or about 57 of native to every 100 of foreign.

Seventy-nine of the whole number were of persons of 40 years years of age and over.

In the age period of from 5 to 40, there were but 20 decedents from diseases of the liver. There was one decedent of unstated age.

The mortality from such diseases does not depend to any marked extent upon the influence of season.

Table LXXXII will present various facts relating to diseases of the liver during thirty-five years.

Table LXXXII.

Mortality from Diseases of the Liver, 1866 to 1900, inclusive.

	aths.		SE	х.	PAREN	TAGE,		DIVISI	ONS OF	THE	STATE.	
YEARS.	Number of Deaths	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-4870	201	1.31	143	88	118	83	12	11	36	47	70	22
1871-1875	202	.98	91	111	119	83	18	14	12	56	88	1-1
1876	45	1.09	26	19	27	18	1	5	5	11	18	ě
1877	52	1.17	23	29	31	21	1		7	16	24	ų
1878	49	1.10	25	24	32	17	8	1	6	14	18	2
1879	52	1.24	27	25	31	21	4	4	2	14	22	(
1880	58	1.27	29	29	40	18	4	3	8	15	25	
1876-4880	256	1.15	130	126	161	95	18	13	28	70	107	20
1881	46	.92	30	16	21	25	2	.2	6	s	24	
1882	62	1.22	34	28	36	26	3	5	10	17	24	1
1883	51	.94	27	24	20	31	5	6	4	16	18	
1884	48	.93	22	26	23	25	5	3	5	2	31	:
1885	61	1.13	24	37	33	29	2	6	6	21	24	1
1881-1885	268	1.03	137	131	132	136	17	55	31	64	121	13
1886	54	.92	29	25	26	28	4	4	4	14	28	
1887	86	1.35	40	46	38	48	3	5	3	31	39	
1888	68	1.03	38	30	36	35	1	5	6	28	26	:
1889	70	1.42	30	40	31	39	1	:2	10	26	29	:
1890	65	.94	43	23	29	36	3	4	6	21	26	:
1886 4890	313	1.07	179	164	160	183	12	20	29	120	148	14
1891	81	1.23	41	40	. 28	53	3	4	9	26	38	1
1892	89	1.20	39	50	34	55	3	5	4	27	45	
1893	72	.97	43	29	30	42	4	8	6	15	36	5
1891	93	4.30	43	50	42	51	2	9	9	42	24	7
1895	81	1.07	-13	38	28	53	,	6	10	27	\$1	7
1891 1895	-116	1.15	209	207	162	251	12	32	38	187	174	25
1896	110	1.47	56	51	37	73	3	~	6	40	48	(
1897	58	.82	31	27	90	36	- 1	3	6	15	25	
1898	91	1.33	41	50	31	(i()	3	~	6	26	-44	8
1899	92	1,23	48	-41	30	70	ő	6	15	25	35	(
1900	100	1.13	56	41	36	64		10	ĩ	20	47	1
1896 1900	451	1.19	332	219	148	303	15	33	40	135	196	3:
Total, 85 years	2,137	1.12	1,091	4,046	1,000	1,137	104	118	214	629	904	138

<sup>\*</sup> Exclusive of Providence city.

#### Dropsy.

We have no deaths recorded in 1900, or in 1899, from dropsy.

As it has been repeatedly observed in previous reports that although this term is a misnomer in a large measure, and conveys no definite idea of the pathological condition preceding the dropsical accumulation, it has been nevertheless, the only cause returned; and as it has been in some instances the apparently immediate cause of death, it was given a place in the Registration Reports; and as a frequent result and concomitant of diseases of the kidneys and liver, it has been placed in comparison with them in the following Table.

It will be noticed that the number of deaths from dropsy, for 1898, was but three. In 1899 and 1900 there has been none so accepted as a cause. This is explained by the fact that the diagnosis of dropsy was not accepted as a cause but as a symptom. In these cases strenuous effort was made by the Registrar to ascertain the cause of the dropsy from the physician, in every case so reported. The large number returned from that cause was distributed under the headings of heart disease, liver disease, or disease of the kidneys, as finally ascertained from the physician in charge, or if not satisfactory has been placed under "cause unknown." These groups of diseases are therefore correspondingly increased over the numbers of previous years.

An examination of Table LXXXIII will serve as evidence of the greater carefulness and better judgment of the medical practitioners of the present time, inasmuch as the causes of dropsy are now better understood and reported, and for that reason the number of deaths attributed to dropsy is very small.

### TABLE LXXXIII.

Mortality from Kidney and Liver Diseases compared with Drapsy (so returned) for thirty-fire years, 1866-1900.

		ATHS FI		FR	DEATI OM LI ISEAS	VER	FROM	AL DEA KIDNE R DISE	Y AND	FROM	DRO		Dropsy Kidney 18es.	Dropsy
YEARS.	Total,	Males.	Females.	Total.	Males.	Females,	Total.	Males.	Females.	Total.	Males,	Females.	Diminution of Dropsy in reference to Kidney and Liver Diseases.	Percentage of to all.
1866-1870	135	91	41	201	118		336	207	129	302	143	159	-34	
1871-1875	295	167	128	505			497	258	239	294	130	164	-203	
1876	50	20	28	45			95	48	47	70	35	35		1.70
1877	67	10	27	52			119	63	56	64	25	30		1.44
1878	80	50	30	49			129	75	54	44	23	21	85	.99
1879	79	51	28	53	27	25	131	78	58	54	28	26	-77	1.21
1880	91	52	39	58	29	29	149	81	68	46	22	24	-103	.95
1876-1880	367	215	152	256	130	126	623	345	278	278	133	145	345	1.25
1881	79	40	39	46	30	16	125	70	55	48	23	25	77	.96
1882	86	50	36	62	34	28	148	84	64	52	23	29	96	1.02
1883	149	72	57	51	27	24	180	99	81	47	21	26	-133	.89
1881	118	53	65	48	22	26	166	75	91	40	20	20	-126	.78
1885	159	95	67	61	24	37	220	116	104	44	30	14	-176	.82
1881-1885	571	307	264	268	137	131	839	444	395	531	117	114	- 60S	.89
1886	155	85	70	54	29	25	209	114	95	45	18	27	-161	.77
1887	169	92	77	86	40	46	255	130	123	35	14	21	-220	.55
1888	218	102	111	68	38	30	281	140	141	47	18	29	-234	.71
1889	210	119	91	70	30	40	280	149	131	42	14	28	235	.67
1890	220	116	113	65	45	23	204	155 	136	- 44	18	26	250 	. 63
1886-1890	976	514	162	343	179	164	1,319	693	626	213	82	131	- 1106	.67
1891	245	128	122	81	-11	-10	326	161	162	35	8	27	= 291	.50
1892	258	135	123	89	39	50	317	174	173	39	17	22	-308	.53
1893	302	151	148	72	43	29	374	197	177	39	11	38	- 335	.50
1891	313	152	161	98	43		406	195	211	î	3	4	- 399	. 10
1895	341	176	165	-81	13	35	420	219	203	- 4	1	3	418	.()5
1891 1895	1, 159	740	719	116	209	207	- 1,875	949	926	121	40	~1	1751	.31
1896	395	200	15G	110	56	5.1	505	265	240	2	1	1	500	.03
1897	357	198	189	58	31	27	445	220	216	0	1	1	- 413	.03
1898	171	229	213	91	-11	50	562	269	293	3	1	2	559	.04
1899	477	211	236	92	48	14,	569	259	280					
1900	516	210	276	100	56	41	616	296	320					
1896 1900	2,216	1,116	1,130	451	232	219	2.697	1,345	1.319	7	3	-4	1505	.02
Total,35 yrs	6,049	3,153	2,896	2.137	1,091	1,046	8.186	4.244	3.942	1,456	651	805	5552	.76

#### MEASLES.

There were 185 decedents from measles as a cause of death in 1900. The number is 138 larger than in the preceding year.

This number represents 2.10 per cent. of all causes, and a proportion of .43 to every 1,000 of the population.

Of the 185, there were 87 males and 98 females. The sexes, as a rule, seem to be nearly equally susceptible to measles and to mortality therefrom.

Of parentage there were 79 of native and 106 of foreign.

During the last ten years the proportion of mortality from measles has been about 53 of native to every 100 of foreign parentage.

During 1990 the number of decedents under 5 years of age was 153.

The number in the different divisions of the State may be found in Table LXXXIV.

Table LXXXIV.

Mortality in the State from Measles, 1866 to 1900, inclusive.

	aths.	1	SE	Χ.	PARES	TAGE,		DIVISI	ONS OF	THE	STATE.	
YEARS.	Number of Deaths	Per cent,	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City,	Washington County.
5 years, 1866-1870	92	.60	44	48	26	66	6	4	12	35	25	
5 years, 1871-1875	102	.50	13	59	58	49	5	12	ĩ	39	35	4
1876	-1	.10		-1	1	3				4		
1877	11	.25	3	8	5	9 ,			1	8	5	
1878 1879	81	1.82	39	42	25	56	2	3		26	50	
1880	9	.20	3	6	2	~				6	3	
1876 1880	105	.47	45	60	30	75	3	3	1	-11	55	
1881	37	.74	17	20	15	22		1	2	9	25	
1882	6	.12	1	5		6				2	4	
1883	14	.27	11	3	9	5		1		3	8	12
1884	18	, 35	10	8	5	13	1	6	1	3	7	
1885	45	.84	27	18	19	26		ĩ	2	27	8	1
1881-1885	120	.46	66	54	48	72	1	15	5	44	52	3
1856	18	.30	11	ĩ	4	14		5		4	9	
1887	132	2.08	69	63	57	75		5	8	26	90	:]
1888	11	.22	5	6	3	8		2		7	2	
1889	29	.47	15	14	10	19		8		7	1.1	
1890	92	1.32	45	47	43	50	2	10		41	31	8
1886-1890	283	.88	145	137	116	166	2	30	8	85	146	11
1891	12	.18	7	5	4	s	1	2	2	3	3	1
1892	28	.38	11	11	10	18		2	-4	11	11	
1893	100	1.31	56	44	33	67		11		:10	61	3
1891	9	.12	-1	5	3	6			2	2	5	
1895	53	.70	24	29	11	42		5		- 8	10	
1891 1895	505	.54	105	97	61	141	1	20	8	46	123	4
1896	58	.77	28	30	22	36		G	3	28	19	0
1897	33	.46	21	12	11	22	5	1	1	s	18	
1898	18	.26	11	ĩ	3	15			1	12	4	1
1899	47	.63	22	25	12	35		5		13	27	-2
1900	185	2.10	87	98	79	106	4	25		48	99	9
1896 1900	341	.90	169	172	127	211	9	37	5	109	167	11
Total, 35 years	1,244	.61	617	627	461	788	26	121	46	402	613	36

<sup>\*</sup> Exclusive of Providence eity.

#### OLD AGE.

The number of deaths, in 1900, attributed to old age as a cause, was 250. This is 22 more than in 1899.

This number represents 2.83 per cent. of all causes, and a proportion of .59 to every 1,000 of the population.

Of the 250 decedents from old age, 96 were males, and 154 were females, or about 62 males to every 100 females.

Of the parentage of the 250, there were 150 of native and 100 of foreign parentage.

The following Table will present the statistics of deaths in Rhode Island from old age for thirty-five years:

TABLE LXXXV.

Mortality in the State from Old Age, 1866 to 1900, inclusive.

	<u>sć</u>		-									
	eath		SE.	X.	PAREN	TAGE.	1	DIVISIO	NS OF	THE S	TATE.	
YEARS.	Number of Deaths.	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870.	998	6.48	366	632	761	254	55	102	157	233	267	134
1871-1875	1,158	5.64	467	691	833	325	61	103	161	332	318	153
1876	241	6.18	107	134	177	64	12	1-1	38	65	71	41
1877	213	5.00	96	117	145	68	12	23	29	57	63	29
1878	222	5.25	84	138	172	50	15	8	32	76	61	30
1879	220	5.22	82	138	152	68	14	19	26	69	67	25
1880	273	5.95	121	152	186	87	12	20	34	90	73	44
1876-1880	1,169	5.24	490	679	532	337	65	81	159	357	335	169
1881	247	5.29	101	146	167	80	12	24	26	93	72	10
1882	283	5.89	110	173	190	93	20	25	40	106	79	13
1883	275	5.99	105	170	184	91	17	18	44	91	81	21
1884	293	5.68	101	192	196	97	16	20	39	106	86	26
1885	267	4.95	86	181	183	84	9	32	47	87	70	55
1881-1885	1.365	5.27	503	862	920	445	7.1	119	206	183	391	92
1886	276	4.69	101	175	181	95	16	24	36	100	73	27
1887	278	4.38	103	175	167	111	17	19	20	109	76	28
1888	290	4.35	108	182	198	95	16	26	25	121	64	35
1889	227	3.63	75	152	136	91	10	23	23	73	71	27
1890	198	2.87	72	126	123	75	16	19	19	59	63	20
1886-1890	1,269	3.97	459	810	805	464	75	111	132	465	347	139
1891	185	2.80	83	102	121	64	18	16	26	65	41	19
1892,	256	3.46	95	161	168	SS	9	24	29	91	71	32
1593	183	2.44	72	111	113	70	S	16	19	33	9.5	15
1891	187	2.61	60	127	109	78	12	21	23	64	51	16
1895,	197	2.61	82	115	105	92	17	17	16	87	51	9
1891-1895	1,008	2.78	392	616	616	392	64	94	113	310	306	91
1896	506	2.71	84	122	112	91	8	23	13	89	57	16
1897,	159	2.21	51	108	96	63	7	9	- 6	69	57	11
1898	205	2.97	56	119	135	70	9	11	30	79	56	20
1899	225	3.06	85	143	148	80	10	16	37	71	70	000
1900	250	2.83	96	154	150	100	15	34	12	70	65	55
1896-1900	1,048	2.77	402	646	641	407	49	(6)	128	880	307	91
Total, 35 years	8,015	4.90	3,079	4.936	5,411	2,604	448	706	1,056	2,640	2,301	869

<sup>\*</sup> Exclusive of Providence city.

#### PERITONITIS.

There were 23 deaths which were caused by peritonitis during 1900.

This number represents .26 per cent. of all causes, and a proportion of .05 to every 1,000 of the population.

Sex.—Of the 23 decedents from peritonitis there were 8 males and 15 females, a proportion of 53 males to every 100 females.

Parentage.—There were 4 of native parentage and 19 of foreign, or a ratio of 21 native to every 100 of foreign parentage.

#### PNEUMONIA.

There were 966 decedents from pneumonia in 1900. The number is 280 larger than in 1899.

This number represents 10.9 per cent. of all causes, and a proportion of 2.3 to every 1,000 of the population.

Sex.—Of the 966 decedents from pneumonia, and including congestion of the lungs, 479 were males and 487 were females; or about 102 females to every 100 males.

Parentage.—By parentage, there were 373 of native and 593 of foreign parentage. The proportion of decedents from pneumonia was about 63 of native to each 100 of foreign parentage.

Season.—There were 645, or over 66 per cent., of the deaths that occurred during the first four months of the year. The largest mortality by months was 209 in April, 173 in March, 135 in February, and 128 in January.

Pneumonia, as a cause of death, has increased in the ratio to whole number of deaths, during the last thirty-five years, from an average of 6.3 per cent., during the first ten years, to an average of 9.2 per cent. during the last ten, including 1900.

The following Table presents, for each of the last thirty-five years, the number and the percentage, with the sex and the parentage of the decedents from pneumonia, and the number in each year, in each division of the State:

TABLE LXXXVI.

Mortality in the State from Paeumonia, 1866 to 1900, inclusive.

											-	
	aths.		SE	x.	PAREN	TAGE.		DIVISI	ONS OF	THE	STATE.	
YEARS.	Number of Deaths	Per cent.	Males,	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870	928	6.0	467	461	556	372	43	56	66	287	407	69
1871-1875	1,331	6.5	667	664	783	548	54	71	62	385	662	97
1876	339	8.2	164	175	162	177	13	23	16	97	163	27
1877	226	5.1	104	122	127	99	10	7	14	81	98	16
1878	317	7.1	143	174	176	141	10	11	18	110	140	28
1879	311	7.4	148	163	163	148	7	15	15	103	156	15
1880	364	7.9	180	184	177	187	26	16	18	92	192	20
1876-1880	1,557	7.0	739	818	805	752	66	72	81	483	749	106
1881	327	6.5	177	150	190	137	10	23	17	81	174	22
1882	314	7.2	178	166	163	181	10	22	24	61	176	21
1883	400	7.8	192	208	198	202	19	21	34	108	204	14
1884	363	7.1	167	196	192	171	10	13	17	125	172	26
1885	465	8.6	214	251	271	194	15	20	33	151	227	19
1881-1885	1,899	7.8	928	971	1,014	885	64	99	125	556	953	102
1886	481	8.2	232	249	234	247	17	29	37	1,61	209	28
1887	488	7.7	260	228	227	261	13	27	39	142	227	40
1888	508	7.7	274	234	207	281	16	37	29	171	219	36
1889,	483	7.7	255	228	213	270	18	37	29	169	208	55
1890	569	8.2	258	281	247	322	16	36	30	206	246	35
1886-1890	2,529	7.9	1,309	1,220	1,148	1,381	80	166	164	849	1,109	161
1891	568	8.5	270	298	247	321	17	40	70	183	232	26
1892	655	8.8	335	320	265	390	18	57	52	216	277	35
1893	776	10.4	412	364	319	157	18	42	-19	232	392	43
1894	665	9.3	341	321	305	360	18	47	-46	224	276	54
1895	685	9.1	340	345	289	396	28	49	25	243	202	48
1891-1895	3,349	9.2	1.701	1,648	1,425	1,924		235	242	1.098	1,469	206
1896	669	S.9	366	303	274	395	23	45	39	263	256	43
1897	635	8.9	337	208	268	367	25	33	36	254	251	36
1898	542	7.8	299	243	218	321	8	39	41	198	241	15
1899	686	9.2	357	329	317	369	12	66	62	201	311	28
1900	966	10.9	479	187	378	593	25	90	-13	323	151	31
1896-1900,	3,498	9.3	1.838	1,660	1.450	2,048	98	273	221	1,242	1.513	156
Total, 35 years	15.091	7.9	7,649	7,449	7,181	7,910	499	972	961	4,900	6.862	897

<sup>\*</sup> Exclusive of Providence city.

### TABLE LXXXVII.

Exhibiting the Number of Decedents from Pneumonia, in each of the several Periods of Life, during each of the last thirty-five years, from 1866 to 1900, inclusive.

					PE	RIODS	or Li	FE.		311-10V m		
YEARS.	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 and over.	Not stated.
1866	57	4	4	5	12	10	14	21	25	32	9	
1867	57	9	2	3	10	11	13	16	25	13	12	1
1868	70	4	3	3	15	8	16	18	19	27	13	
1869	64	11	1	2	11	12	9	28	25	16	11	
1870	84	6	5	4	6	7	8	14	20	19	8	1
1871	71	7	2	7	10	17	16	16	35	17	19	1
1872	83	5	1	7	17	20	19	22	24	19	· 11	1
1873	105	4	8	3	10	14	16	17	24	23	10	
1874	76	9	4	6	17	17	25	21	40	27	8	
1875	120	9	3	8	22	30	35	39	61	43	28	2
1876	116	5	4	3	20	20	32	35	48	39	17	
1877	79	2		ř	15	15	24	27	22	24	9	
1878	115	9	4	10	14	17	28	20	42	45	13	
1879	102	8	1	3	14	27	26	35	38	38	19	
1880	95	18	3	16	14	33	37	46	47	43	12	
1881	102	4	2	5	15	22	26	45	48	21	26	1
1882	71	3	4	14	22	36	49	33	41	46	21	4
1883	88	15	2	13	32	33	40	53	49	46	27	:
1884	103	14	5	11	23	34	24	32	53	37	23	4
1885	121	9	10	8	23	29	50	49	76	59	29	;
1886	111	10	7	19	33	35	50	58	74	55	30	
1887	132	15	7	7	32	43	51	56	6.1	53	28	
1888	103	20	5	15	49	48	61	62	70	54	21	
1889	120	14	3	20	27	36	51	57	77	47	31	
1890	161	7	10	12	46	55	55	55	79	54	33	5
1891	126	10	1	11	45	51	60	70	84	70	37	
1892	139	10	9	10	39	69	75	74	110	71	-44	
1893	176	25	8	17	49	68	96	115	102	70	50	
1891	169	19	9	18	47	56	67	72	78	77	52	1
1895	172	16	9	20	49	56	77	66	94	77	-19	
1896	220	20	7	17	33	55	56	71	83	66	-40	1
1897	194	14	10	17	83	46	58	58	78	75	57	
1898	203	11	4	9	23	39	40	58	66	51	36	
1899	238	11	6	19	38	53	50	62	78	74	53	1
1900	238	24	7	21	53	77	86	105	109	90	54	2
Total, 35 years	4,880	381	173	370	914	1,202	1,440	1,621	2,003	1,631	940	33

Age.—Of the decedents from pneumonia, during the period of thirty-five years, 29 per cent. were under 5 years of age. Of over fifty years of age the number of decedents was 41 per cent. of the whole number. The following summary will present the percentages for 1900, in round numbers:

Under five years of age	35	per cent.
Five years and under twenty, and not stated	6	per cent.
Twenty years and under fifty	20	per cent.
Fifty years and over	37	per cent.

#### SCARLET FEVER.

The number of deaths returned as having been caused by scarlet fever, in 1900, was 34. The number is 5 more than in 1899.

This number represents .3 per cent. of all causes, and a proportion of .08 to every 1,000 of the population.

Sex.—Of the 34 decedents from scarlet fever, 24 were males and 10 were females, or 42 females to every 100 males.

Purentage.—There were 22 of native parentage and 12 of foreign, a proportion of 54 of foreign parentage to every 100 of native.

The following Table will present the statistics of scarlet fever for the last forty-five years, from 1856 to 1900, inclusive, the number and percentage and sex of the decedents from scarlet fever, and the number from scarlet fever in each division of the State. It also shows, from 1866 to 1900, inclusive, the parentage of the decedents from scarlet fever:

# TABLE LXXXVIII. Mortality in the State from Scarlet Fever, 1856 to 1900, inclusive.

	eaths.		SE	х.	PAREN	TAGE.		DIVISI	ONS OF	THE	STATE.	
YEARS.	Number of Deaths.	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
10 yrs., 1856-1865.	1,440	5.2	700	740	+	†	57	79	191	414	634	65
1866-1870	496	3.2	231	265	210	286	26	32	27	142	236	33
1871-1875	1,053	5.1	503	550	513	540	40	53	51	302	534	78
1876	80	1.9	34	46	42	38	3	2	7	21	35	12
1877	62	1.4	26	36	29	33	14	4	3	21	12	8
1878	86	1.9	41	45	35	51	3	5	3	14	57	4
1879	311	7.4	164	147	130	181	3	6	4	37	255	6
1880	468	10.0	215	253	216	252	22	30	11	143	243	19
1876-1880	1,007	4.5	480	527	452	555	45	47	28	236	602	49
1881	138	3.0	79	59	62	76	11	25	12	41	45	4
1882	45	0.9	24	21	16	29		3	16	7	18	1
1883	34	0.6	17	17	14	20	1	1	5	9	16	2
1884	94	1.8	39	58	41	56			8	28	57	4
1885	91	1.7	36	55	48	43		3	6	24	38	20
1881-1885	405	1.6	195	210	181	224	12	32	47	109	174	31
1886	88	1.5	46	42	29	59		13	2	41	30	2
1887	266	4.2	120	146	95	171	9	16	4	80	154	3
1888	207	3.1	101	106	91	116	1	29	10	87	80	
1889	51	0.8	24	27	14	37	3	2	6	14	25	1
1890	16	0.2	11	5	6	10		3		2	8	3
1886-1890	628	2.0	302	326	285	393	13	63	22	224	297	9
1891	33	0.5	17	16	12	21	1	3		9	17	3
1892	67	0.9	38	29	21	46	1	4	4	20	38	
1893	193	2.6	86	107	75	118	1	23	3	68	97	1
1894	123	1.7	59	64	52	71	2	8	2	55	56	
1895	107	1.4	52	55	42	65	1	2	3	37	63	1
1891-1895,	523	1.4	252	271	202	321	6	40	12	189	271	5
1896	53	0.7	30	23	24	29		2	1	9	33	8
1897	29	0.4	15	14	13	16	1	1	-4	10	12	1
1898	21	0.3	10	11	14	7		1	1	13	4	2
1899	29	0.4	17	12	13	16		3		6	19	1
1900	34	0.3	24	10	22	12		1	в	16	11	
1896-1900	166	0.4	96	70	86	80	1	8	12	54	79	12
Total, 35 years	5,718	3.0	2,759	2,959	1,879	2,399	200	854	390	1,670	2,827	277

<sup>\*</sup> Not including Providence city. † Records incomplete.

### CROUP, DIPHTHERIA, AND SCARLET FEVER.

### Season and Mortality.

The following Table is continued, to show by comparison the influence of season in regard to the mortality from croup and scarlet fever for forty-seven years, and diphtheria for forty-three years. The Table will give the average monthly and quarterly percentages of deaths from each cause:

TABLE LXXXIX.

	CRO	OUP.	DIPHT	HERIA.	SCARLET	FEVER.
	1853-	-1900.	1858-	-1900.	1853-1	1900.
MONTHS.	Number of deaths.	Per cent.	Number of deaths.	Per cent.	Number of deaths.	Per cent.
January	404	12.70	591	9.74	784	12.28
February	354	11.12	447	7.37	715	11.15
March	291	9.15	467	7.70	639	9.97
First Quarter	1,049	32.97	1,505	24.81	2.138	33.33
April	233	7.32	418	6.89	556	8.67
Мау	166	5.22	417	6.88	574	8.96
June	140	4.40	355	5.85	486	7.58
Second Quarter	539	16.94	1,190	19.62	1,616	25.2
July	107	3.36	327	5.39	366	5.71
August	90	2.83	354	5.83	302	4.7
September	185	5.81	450	7,42	320	4.99
Third Quarter	382	12.00	1,131	18.64	988	15.41
October	333	10.47	755	12.45	413	6.91
November	445	13.98	787	12.97	535	8.3
December	434	13.64	698	11.51	691	10.78
Fourth Quarter	1,212	38.09	2,240	36.93	1,669	26.00
Totals	3,182	100.00	6,066	100.00	6,411	100.00

#### SUICIDE.

The number of deaths by suicide, in Rhode Island, during 1900, was 55, which is 14 more than in the preceding year.

There were 42 male and 13 female decedents from that cause, or a proportion of 3 males to every 1 of the females.

Of the 55, 25 were of native parentage and 35 of foreign.

The means of self-destruction, according to the returns, were as follows:

By cutting throat, 8; by drowning, 9; by hanging, 13; by illuminating gas, 1; by jumping from window, 1; by shooting, 10; by carbolic acid, 3; by chloroform, 1; by cyanide potassium, 3; morphine, 3; paris green, 3.

Table XC.

Mortality in the State from Suicide, 1866 to 1900, inclusive.

	eaths		SE	X.	PAREN	TAGE.		DIVISI	ONS OF	THE	STATE.	
YEARS.	Number of Deaths	Per cent.	Males.	Females,	Native.	Foreign.	Bristol County,	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870	86	.56	67	19	66	20	2	7	6	31	34	6
1871 1875	89	.43	61	28	57	33	3	9	6	20	43	. 8
1876	18	.46	15	3	6	12			1	, 5	10	, ,
1877	22	.52	16	6	15	î		5	1	5	12	5
1878	21	.50	16	5	12	9	3	2		5	7	4
1879	13	.31	10	3	5	8	·			5	7	1
1880	10	.20	5	5	s	2		1	1	6	2	
1876-1880	84	.38	62	22	46	38	3	5	3	26	38	
1881	23	. 19	19	4	15	8		5	3		14	
1882	31	.64	23	8	23	8	1	.1	3	8	12	2
1883	25	.47	18	7	11	14			2	8	15	
1884	22	.43	20	2	13	9		1	1	6	11	5
1885	20	.37	16	4	11	9	1	1	6	3	6	3
1881-1885	121	.47	96	25	73	48	2	11,	15	25	58	10
1886	17	.29	16	1	12	5	1	3	2	4	7	
1887	16	.25	13	3	8	8	2		2	5	7	
1888	21	.42	20	1	15	6		1	3	6	9	9
1889	24	.38	20	4	9	15		2	5	7	10	
1890	19	.28	15	4	12	ĩ	2		1	8	5	
1886-1890	97	.30	84	13	56	41	5	6	13	30	38	
1891	40	. 61	27	13	15	25	5	2		10	24	
1892	19	. 26	15	4	10	9			4	6	8	1
1893	21	.38	18	8	10	11		2		7	12	
1894	45	.63	36	9	24	21	1	3	5	14	19	
1895	31	.41	22	9	13	18	3	2	5	5	13	8
1891 1895	156	.46	118	38	72	84	6	9	14	42	76	1
1896	38	.51	28	10	20	18	2	1	2)	11	20	
1897	41	.58	33	8	21	20		-4	5	11	18	:
1898	46	.67	38	s	20	26		3	4	11	21	1
1899	41	.55	30	11	18	23	1	2	1	ĩ	27	8
0001	55	.62	40	18	25	30	1	2	7	21	19	
1896-1900	221	.58	171	50	104	117	-4	19	19	67	108	11
Potal, 85 years	854	.45	659	195	474	380	25	59	76	211	395	5.9

<sup>\*</sup> Exclusive of Providence city.

#### WHOOPING COUGH.

The number of deaths from whooping cough, returned in 1900, was the same as the number in 1899.

Of the 86 decedents from whooping cough, 31 were males and 55 were females.

There were 34 decedents of native parentage and 52 of foreign. Eighty-four of the decedents were under 5 years of age.

The following Table will present the mortality from whooping cough, for thirty-five years, 1866–1900, inclusive, with the death rate, sex, parentage, etc., of the decedents:

Table XCI.

Mortality in the State from Whooping Cough, 1866 to 1900, inclusive.

	suths		SI	ix.	PARES	NTAGE.		DIVISI	ions of	F THE	STATE	
YEARS.	Number of Deaths	Per cent.	Males.	Females,	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870	153	.99	78	75	68	85	2	13	14	54	63	7
1871-1875	160	.78	65	95	64	96	4	11	13	56	73	3
1876	48	1.17	19	29	20	28	5	3	1	7	31	1
1877	32	.72	18	14	6	26			1	15	16	
1878	54	1.22	26	28	30	24		1		9	43	1
1879	43	.96	17	26	22	21		11	1	12	15	4
1880	20	.41	10	10	7	13			2	6	11	1
1876-1880	197	.88	90	107	85	112	5	15	5	49	116	7
1881	68	1.36	33	35	30	38		2	2	24	40	
1882	71	1.40	33	38	32	39		4		26	40	1
1883	9	.17	6	3	5	4	1			4	4	
1884	43	.83	17	26	23	20	5		2	6	28	2
1885	42	.79	23	19	24	18		1	4	9	24	14
1881-1885	233	.90	112	121	114	119	6	7	8	69	136	~~~~
1886	49	.83	28	21	17	32	4	3		18	23	1
1887	21	.32	9	12	10	11			4	6	10	1
1888	44	.75	17	27	16	28		3	2	11	28	
1889	77	1.23	39	38	36	41	1	12	1	20	43	
1890	70	1.00	25	45	25	45	2	2	7	27	30	2
1886-1890	261	.82	118	143	104	157	7	20	14	82	131	4
1891	77	1.16	39	38	37	40	3	1	3	15	51	1
1892	25	.34	10	15	14	11		1	3	12	9	
1898	23	.31	8	15	9	14	1		4	9	7	2
1894	129	1.80	53	77	62	67	3	19	15	33	55	4
1895	45	.60	19	26	13	32		8	2	7	27	1
1891-1895	299	.84	128	171	135	161	~	29	27	76	152	8
1896	59	.79	25	34	24	85	2	4	7	16	24	6
1897	56	.79	27	29	26	30	1	$\mathbf{s}$	11	14	17	õ
1898	96	1.39	37	59	50	46	5	2	1	21	57	4
1899	86	1.15	30	56	43	43	1	5	1	30	47	2
1900	86	.97	31	55	34	52	4	6	3	25	46	2
1896-1900	383	1.01	150	233	177	206	13	25	26	109	191	19
Total, 35 years	1,686	.88	711	945	747	939	41	120	107	-195	865	55

<sup>\*</sup> Exclusive of Providence city.

TABLE XCII

Presenting the Ratio of Mortality to the Whole Number of Specified Causes of Death, of Twenty Prominent Causes, for twenty-five years, 1876-1900.

H	000.	3.85	5.76	3.30	3.56	3,32	6.34	85	08.
	99.	3.71 3	6,15 5	3.59 3	3.24	3.93		11.32 10.97 12.87 13.07 11.23	.15
							90 6.36	37 13.	.13
	189	4.30	6.04	4.75	3.43	9 4.05	08.90	12.8	
	1897	3.71	6.62	4.63	3.19	3.59	6.00	10.9	.24
	1896.	3.96	5.61	4.00	3.69	3.05	7.29	11.32	88.
	1895.	3.92	5.57	3,45	3.66	3.13	6.68	9.92 11.21	.40
	1894.	3.29	98.9	3.11	3.57	3.01	6.98	9.92	.45
	1893.	3.58	5.52	3,49	4.24	2.78	8.18	9.79	.68
	1892.	4.18	4.89	85 85 85	4.16	2,45	8.56		1.20
	891.	3.54	5.08	3.36	85. 17.	3.66	8.85	$\frac{1.18}{-}$	1.01
	890.	3.60	4.91	3.13	4.01	2.41	8.39	2.291	1.19
	1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900,	3.46	5.17	3.03	4.30	3.03	6.80	16.78 15.52 15.98 15.09 14.02 15.12 15.33 15.01 14.34 14.45 14.12 11.19 12.13 11.61 12.39 11.18 10.36	1.45 2.16 1.60 1.40 1.55 1.74 1.55 1.79 1.19 1.28 1.19 1.01 1.00
YEARS	888.	3.01	5.50	3.43	3,45	5.39	2.08	2.13.1	1.19
XI	887.	3.25	4.17	3.29	5.5	9.50	5.60	1.19	1.79
	886.	65.	5.69	3.11	2.96	2.77	6.27	4.191	1.55
	885.	3.09	5.38	3.61	3.09	3 59	5.16	4.45	1.74
	1884, 1885.	3.80	5.78	2.97	68.8	3.03		4.34 1	1.55
Table	1883. 1	8:	5.39	3.50	3.04	3.30	6.77 4.73 6.31	5.01 1	1.40
		3.44	5.59	3.60		2.75	5.77	5.83.1	1.60
	1881. 1882.	3.04	5.23	3.84	1.80	3.11	5.15	5.12	9.16
	1880. 1	3.51	4.67	3.44	1.98	2.73	5.43	1.05	1.45
	87.9	€£.5	5.21	3.73	1.47	3.96	3.81	5.09	85.58
	1876, 1877, 1878, 1879	2.89	4.45	3.38	1.89	8.8	3.97	.98 1	9.30
	1.77.	3.10 2	4.25	3.68	1.63 1	3.17	80.9	.59 15	65.
1		3.40 3	4.01	3.64 3	1.46 1	2.7.2	6.41 6	-78 15	2.61 2
	32	1 :	- <del></del>	en :	-:	≎₹ :		16	es .
	CAUSES OF DEATH.	Accidents (all kinds)	APOPLEXY AND PARALYSIS	BRAIN, DISEASES OF	Ввоментия	CANCER	CHOLERA INFANTUM	Conscmption	CROUP
	CAL	ACCIDENTS	APOPLEXY	BRAIN, DIE	Вкомент	CANCER	CHOLERA I	CONSUMPT	CROUP

TABLE XCII.—Concluded.

																									11
												Y	YEARS												
CAUSES OF DEATH.	1876	1877.	1878.	1879	1880.	1881.	1883.	1883.	1884.	1885.	1886.	1887.	1888.	1889	1890.	1891.	1892.	1893, 1894.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Diarrigea	1.87	 11.	1.25	1.26	1.53	1.65	1.87	20.00	5.30	1.55	1.59	2.09	1.20	1.40	1.37	1.26	1.73	1.59	1.17	08.	200	æ	8.	6.	68:
	4.07	11.56	10.28	6.14	3,40	4.63	2.10	1.88	2,31	1.83	3.90	1.53	2.86	2.93	3.01	1.54	1.20	2.13	1.87	4.54	3.79	3.36	1.35	1.16	3.16
Dysentery	1.28	1.33	.95	1.04	.61	.90	1.42	1.06	8.	.68	1.13	1.04	1.11	1.14	1.25	68.	96.	.57	.57	.55	.41	3.	18	.59	- 98
	3.00	3.55	3.94	2.70	33.32	3.05	4.60	5.15	3.24	2.93	2.87	3.00	3.58	2.39	2.36	2.37	1.88	1.61	2,43	2.30	20.0	1.55	1.55	1.61	1.68
HEART, DISEASES OF	4.03	88.	3.92	7. 2.	5.03	5.68	5.3	6.35	5.60	6.48	6.20	6.46	6.56	7.35	5.81	7.85	6.84	7.36	6.70	7.15	7.41	8.05	7.97	8.85	70.7
Wиоориме Сосен	1.23	15.	1.28	1.03	P	1.46	1.48	.17	£.	.79	83.	.32	£.	1.23	1.00	1.16	8.	.31	1.83	09.	.79	.79	1.39	1.16	86.
Иурвосериализ	1.74	1.29	1.65	1.36	1.01	1.20	1.03	s.	.83	.31	.41	4.	.47	.30	ş.	20.	.30	.45	.13	 15.	55	83	08.	Ĭ.	GG.
KIDNEYS, DISEASES OF	1.28	1.57	1.80	1.88	30.5	1.69	1.79	2.43	2.52	3.14	3.61	3.66	85 .5	3.38	3.20	5-	3,49	1.10	4.41	4.56	5.28	5.46	6.84	6.41	5.82
LIVER, DISEASES OF	1.15	1.06	1.06	1.17	1.20	38.	1.21	88.	88.	.83	1.08	1.34	1.19	1.30	6.	es es	1.20	8	1.31	1.08	1.47	88.	. T	5.1	1.14
Ось Абв	6.18	5.00	5.25	5.23	5.95	5.29	5.89	5.23	5.68	4.95	4.69	4.38	4.35	3.63	2.87	2.80	3.46	2.48	2.63	2.63	97.2	3.	86.5 86.5	3.0%	20
PNEUMONIA	8.69	5.31	7.49	7.87	7.90	7.01	7.16	7.81	7.11	8.65	8.18	7.70	7.62	7.69	8.30	8.60	8.851	10.53	9.36	9.15	8.95	8.96		9.21	10.99
SCARLET FEVER	2.05	1.46	2.03	7.97	9.99	2.96	16.	.61	.61 1.88	1.70	1.50	4.30	3.11	88	35	.50	.91	3.62	1.73	1.43	E	Ŧ	800	.39	.89
														-	İ	-									

### TABLE XCIII.—BIRTHS.

### Occupation of the Fathers.—1900.

occupations.	Number.
1 Serew Makers	. 1
30 Shirt	. 1
7 Shoe	. 71
6 Spectacle	. 1
8 Spindle	. 4
1 Tool	. 25
7 Blacksmiths	. 118
85 Bleachers and Fullers	. 23
6 Boat Builders	. 1
4 Boatmen	. 1
115 Bookbinders	. 8
59 Bookkeepers	. 64
1 Bootblacks	. 9
6 Bottlers	. 12
29 Brakemen	. 37
9 Brewers	. 14
10 Brick and Stone Layers	. 16
1 Building Movers	
4 Butchers and Marketmen	. 80
3 Butlers	. 6
2 Cab Drivers and Hackmen	. (
9 Carders	. 30
5 Card Grinders	. 8
1   Carpenters	. 461
10 Chasers	. 8
6 Civil Engineers	. 10
2   Clergymen	. 20
8 Clerks and Salesmen	. 898
9 Clothiers	. 10
2 Coachmen	. 3
11 Coal and Wood Dealers	. 13
5 Dry Goods	
2 Fish and Oyster	. 10
2 Furniture	

# TABLE XCIII.—Continued.

	er.		er.
OCCUPATIONS.	Number	OCCUPATIONS.	Number.
Grain Dealers	3	Elevatormen	:
Hardware	4	Enamelers	
Ice	4	Engineers and Firemen	186
Junk	23	Engravers	18
Leather	1	Expressmen	20
Liquor	55	Farmers	309
Lumber	1	File Cutters	3-
Music	1	File Forgers	
News	3	Finishers	11
Oil	2	Brass	1
Paper	3	Fire Company Members	
Provision	6	Fishermen and Oystermen	4
Shoe	4	Florists	13
Stove	1	Folders	1
Tea	2	Foundrymen	:
Collectors	17	Fruiterers	1
Commercial Travelers	21	Furniture Movers	:
Compositors	6	Gardeners	5
Concreters	4	Gas Fitters	1
Conductors and Motormen	91	Glass Blowers and Workers	
Confectioners	9	Grocers	13
Contractors and Bullders	20	'Hatters	
Cooks and Caterers	33	Heaters	
Coopers	12	Horse Trainers	
Coppersmiths	3	Hostlers	4
Cutters	4	Hotel and Inn Keepers	
Velvet	5	Saloon and Restaurant	3
Decorators	3	1cemen	1
Dentists	6	Inspectors	1
Designers	11	Insurance Agents	3.
Die Cutters	4	Real Estate	
Die Sinkers	4	Inventors	
Draughtsmen	12	Iron Rollers and Workers	1
Drivers	-10	Janitors	3
Drnggists and Apothecaries	19	Jewelers	21
Dyers	66	Jobbers	
Electricians	54	Journalists (Editors and Reporters)	1

## TABLE XCIII.—Continued.

	1 1	1	
OCCUPATIONS.	Number.	OCCUPATIONS.	Number.
Journeymen	32	Peddlers	147
Knitters	11	Photographers and Lithographers	5
Laborers	2,508	Physicians	30
Lamplighters	2	Piano Tuners	1
Lapidaries		Plasterers and Stucco Workers	21
Lathers	7	Platers (Electro)	8
Laundrymen	13	Gold	1
Lawyers	15	Silver	1
Life Saving Service Men		Plumbers	67
Linemen	16	Polishers	38
Locksmiths	. 1	Gold	5
Longshoremen	. 8	Silver	2
Loom Fixers	. 83	Pork and Meat Cutters and Pork Packers	15
Lumbermen	1	Porters	25
Machinists	517	Postmasters	
Mail Carriers		Pressmen	
Managers		Printers	3
Manufacturers		Proofreaders	
Mariners	_	Public Officers	
Masons		Railroad Officials	
Masseurs		Employees	1
Mechanics	200	Refiners	
Merchants		Riggers	
Melters		Roll Coverers	
Milkmen		Roofers	
Millers		Rubber Workers	12
Millwrights		Sailors	1
Moulders		Sea Captains and Ship Masters	
Musicians	40	Secretaries	
Operatives	i	Servants	
Opticlans		Sextons	
Painters		Sheriffs, Constables, and Policemen	
Carriage		Ship Carpenters	
Paper Hangers		Silversmiths	4
Pavers		Slaters	
Paymasters		Soldiers	1
Pearl Workers	5	Spinners	
reall workers			

## Table XCIII.—Concluded.

OCCUPATIONS.	Number.	OCCUPATIONS.	Number,
Stable Keepers	7	Telephone and Telegraph Operators	15
Stampers	1	Tiusmiths	33
Stair Builders	2	Tobacconists	2
Station Agents	5	Traders	3
Stationers	1	Treasurers	6
Steam Pipers	23	Trustees	1
Stenographers	1	Undertakers	9
Stereotypers	1	Upholsterers	12
Stevedores	3	Valets	1
Stewards	2	Veterinary Surgeons	2
Stockmen	1	Waiters	16
Stone Cutters and Marble Workers	66	Watchmen	35
Store Keepers	18	Weavers	579
Students	2	Well Diggers	2
Surveyors. Highway	1	Wheelwrights	10
Superintendents and Overseers	127	Whitewashers	5
Switchmen and Gatemen	8	Window Dressers	2
Tailors	76	Wire Workers	15
Tanners and Curriers	4	Wood Cutters	6
Taxidermists	1	Wood Finishers	5
Teachers and Professors	24	Wood Sawyers	1
Music	7	Wood Turners	10
Teamsters	223	Wool Sorters	14

## TABLE XCIV.—MARRIAGES.

### Occupations of the Grooms,—1900.

OCCUPATIONS.	Number.	OCCUPATIONS.	Number.
Agents and Canvassers	9	Wringer Makers	4
Architects	5	Blacksmiths	38
Artists	6	Bleachers and Fullers	17
Assayers and Analytical Chemists	2	Boat Builders	1
Baggage Masters	2	Boatmen	1
Bakers	29	Bookbinders	3
Bankers and Brokers	11	Bookkeepers	44
Barbers	47	Booksellers	1
Bartenders	23	Bottlers	5
Bicycle Makers	1	Brakemen	8
Bobbin	6	Brewers	7
Boiler	6	Brick and Stone Layers	4
Bolt	4	Building Movers	1
Box	10	Butchers and Marketmen	19
Brick	3	Butlers	3
Brush	1	Buyers	1
Button	1	Cab Drivers and Hackmen	2
Cabinet	2	Calenders	2
Carriage, and Trimmers	3	Carders	6
Cigar	9	Card Grinders	3
Clock and Watch	7	Carpenters	119
Comb	2	Chasers	2
Core	3	Circus Performers	1
Harness and Saddle	2	Civil Engineers	5
Paint	2	Clergymen	6
Pattern	9	Clerks and Salesmen	338
Piano	1	Clothlers	1
Reed	1	Coachmen	14
Sail	1	Coal and Wood Dealers	3
Serew	1	Dry Goods	4
Shirt	1	Fish and Oyster	6
Shoe	21	Furniture	1
Soap	1	Grain	2
Tool	18	Hardware	5

## Table XCIV.—Continued.

OCCUPATIONS.	Number	OCCUPATIONS,	Number.
Iorse Dealers	2	Finishers	1
Junk	1	Fire Company Members	
Leather	1	Fishermen and Oystermen	1
Liquor	12	Florists	
Lumber	3	Folders	
Mattress	1	Foundrymen	
News	1	Fruiterers	
Oil	2	Gardeners	:
Provision	9	Gasfitters	
Shoe	1	Grocers	2
ollectors	7	Gymnast	
ommercial Travelers	21	Hatters	
ompositors	4	Hostlers	
onductors and Motormen	39	Hotel and Inn Keepers	
onfectioners	2	Saloon and Restaurant	
ontractors and Builders	9	Icemen	
ooks and Caterers	11	Inspectors	
oopers	1	Insurance Agents	
oppersmiths	1	Real Estate	
ntters	4	Iron Workers	
ecorators	5	Janitors	
entists	7	Jewelers	1
esigners	6	Journalists (Editors and Reporters)	
rie Cutters	2	Knitters	
ie Sinkers	2	Laborers	4
ranghtsmen	8	Lamplighters	
rivers	29	Lathers	
ruggists and Apothecuries	17	Laundrymen.	
yers	25	Lawyers	
lectricians	27	Life Saving Service Men.	
levatormen	2	Linemen	
namelers	1	Longshoremen.	
ngineers and Flremen	67	Longsnoremen	
ngravers	6	Lumbermen	
`			
xpressmen	10	Machinists	2
armers	153	Mail Carriers	
ile Cutters	16	Magician	

## Table XCIV.—Continued.

OCCUPATIONS.	Number.	OCCUPATIONS.	Number.
Manufacturers	26	Riggers	1
Mariners	5	Roll Coverers	2
Masons	25	Roofers	1
Mechanics	23	Rubber Workers	36
Merchants	36	Sailors	19
Messengers	1	Sea Captains and Ship Masters	5
Milkmen	7	Secretaries	3
Millers	3	Servants	1
Millwrights	4	Sextons	1
Miners	2	Sheriffs, Constables, and Policemen	9
Moulders	52	Ship Builders	1
Musicians	12	Ship Carpenters	3
Naval Officers	3	Silversmiths	17
Nurses	3	Soldiers	8
Operatives	237	Spinners	47
Painters and Glaziers	70	Stable Keepers	4
Painters, Carriage	5	Stampers	2
Paper Hangers	2	Steam Pipers	8
Pearl Workers	1	Stenographers	1
Peddlers	17	Stevedores	1
Photographers and Lithographers	3	Stewards	5
Physicians	17	Stone Cutters and Marble Workers	13
Plano Movers	1	Store Keepers	7
Piano Tuners	3	Students	11
Pilots	2	Superintendents and Overseers	40
Plasterers and Stucco Workers	9	Switchmen and Gatemen	3
Platers	2	Tailors.	27
Plumbers	32	Teachers and Professors	11
Polishers	22	Teamsters	120
Silver	2	Telegraph Operators.	3
Pork and Meat Cutters and Pork Packers	7	Tinsmiths	10
Porters	10	Traders	10
Pressmen	10	Treasurers	1
Printers	29	Trimmers	2
Public Officers	23	Undertakers	6
Publishers	3	Upholsterers	4
Railroad Employees	15		1
Refiners	3	Valets	4
TOTAL CONTROL OF THE PROPERTY	0	vecentiary surgeous	4

## Table XCIV.—Concluded.

OCCUPATIONS.	Number.	OCCUPATIONS.	Number.
Waiters	26	Wood Sawyers	1
Watchmen	8	Wood Turners	5
Weavers	221	Wood Workers	4
Window Dressers	2	Wool Sorters	8
Wire Workers	4		

TABLE XCV.

Occupations and Ayes of Decedents, from June 1, 1852, to January 1, 1901, comprising a period of forty-eight years and seren months.

	Average Age.	55.71	88.99	58.08	50.20	57.89	52.80	55.91	54.42	50.56	56.16	62.47	47.33	45.20	30.10	48.43	47.36	51.53	54.96
	Aggregate Ages	788	1,672	3,207	503	37,974	2.112	2,460	41,194	3.640	1,797	1,999	1,278	20,432	4,184	1,114	699	16,539	3,243
	Total Mortality.	7	33	388	. 10	929	40	44	757	22	888	35	22	452	139	53	14	178	59
(OCCUPATIONS UNDER TEN, AND AGES FINDER TWENTY, EXCLUDED.)	OCCUPATIONS.	MALES. Pump and Block Makers	Rope	Sail	Sash and Blind	Shoe	Tool	Watch and Clock	Blacksmiths and Farriers	Bleachers and Fullers	Boatmen	Boat Builders	Bookbinders	Bookkeepers	Brakemen	Brewers	Brick and Stone Layers	Butchers and Marketmen	Calico Printers
R TEN, AND	Average Age.	34.80	52.89	56.17	51.95	64.65	60.09	64.36	35.36	35.78	58.46	41.93	46.53	50.81	58.46	56.54	45.93	50.51	59.00
ATIONS UNDER	Aggregate. Ages.	599	14,863	955	2.129	11,379	10,024	4,441	9,936	1,932	260	3,480	1.070	813	8.419	4,332	5,052	6,971	5,015
(оесив	Total. Mortality.	15	381	17	41	176	167	69	281	54	13	88	528	16	144	ş.	110	138	85
	OCCUPATION.	Actors	Agents	Architects	Artists	Bakers	Bankers	Bank Officers	Barbers	Bartenders	Belt Makers	Boiler	Box	Broom and Brush	Cabinet	Carriage, and Trimmers	Cigar	Harness	Pattern

Table XCV.—Continued.

OCCUPATIONS.	Total Mortality.	Aggregate Ages.	Average Age.	OCCUPATIONS.	Total Mortality.	Aggregate Ages.	Averge Age.
Calkers.	151	1,033	68.87	WALES, Cooks and Caterers.	138	6.176	48.33
Carders	15	908	53.73	Coopers.	133	8.770	65.91
Carpenters and Joingrs	2,331	130,887	56.15	Coppersmiths	16	696	60.56
Chasers	18	999	37.00	Decorators	77	526	37.57
Civil Engineers	70	2,673	49.50	Dentists	20	2.664	53.28
Clerks and Safesmen	1,407	53,228	37.83	Designers	₹	1.999	50.92
('lergymen	580	17,938	64.06	Die Sinkers	85	1,101	48.00
Clothiers	98	106	34.96	Draughtsmen	15	202	33.67
Coachmen	500	9.271	41.36	Drivers, Cab, etc	105	4,327	41.21
Coal and Wood Dealers	16	965	60.31	Car Conductors and Motormen	39	2,481	40.03
Flsh and Oyster	88	1.687	60.25	Druggists and Apothecaries	133	8,756	71.17
Junk	15	988	55.07	Dyers	154	7,845	50.94
Liquor	181	6,085	46,45	Electricians	20	689	38.28
Lumber	18	1.004	55.78	Engineers and Firemen	667	24,863	49.83
Provision	55	1,245	56.59	Engravers	148	7.278	49.17
Shoe	14	757	51.07	Expressmen	109	5,568	51.08
Collectors	35	1,773	55.41	Farmers	7,189	483,215	67.22
Commercial Travelers	17	1,163	68.41	Finishers	65	1,399	48.24
Confectioners	49	2,288	46.69	File Culters	26	3,961	40.84
Contractors and Builders	182	7,913	19.95	Nail	15	061	40.83

## Table XCV.—Continued.

				*			
OCCUPATIONS.	Total Mortality.	Aggregate Ages.	Average Age.	occupations.	Total Mortality.	Aggregate Ages.	Average Age.
MALES, Fire Company Members.	10	450	45.50	Jewelers	1,291	51,562	49.23
Fishermen and Oystermen	973	14,724	54.13	Journalists (Editors and Reporters)	52	2,468	47.46
Florists	65	3,583	55.12	Judges and Justices	18	1,156	64.22
Founders	08	1,001	50.05	Laborers	11,112	549,836	49.48
Foundrymen	60 60 60 60 60 60 60 60 60 60 60 60 60	1,209	52.56	Lamplighters	25	1,152	54.85
Gardeners	308	20,010	59.30	Lapidaries	13	430	35.83
Gasfitters	65	2,830	48.54	Laundrymen	17	637	37.47
Gilders	12	535	44.58	Lawyers	008	11,439	57.19
Grocers	481	26,047	54.15	Linemen	14	497	35.50
Gun and Loeksmiths	98	1,457	56.04	Machinists	1,797	88,002	48.97
Hatters	36	1,400	53.85	Mail Carriers	33	1,018	46.27
Hostlers	162	7,025	43.36	Manufacturers	889	45,014	61.07
Hotel and Inn Keepers	183	10.108	55.23	Mariners	230	26,436	49.88
Saloon and Restaurant	202	9,543	46.10	Masons	975	54,660	56.06
Stable	E	4,191	54.43	Mechanies	208	88,38	52.93
Store	58	3,069	52.91	Melters	12	799	55.58
Inspectors	30	1,051	52.55	Merchants	1,404	82,113	58.48
Inventors	16	1,054	65.87	Milkmen	50	717	35.85
Iron Rollers and Workers	19	606	47.84	Millers	51	2,947	57.78
Janitors	107	5,732	53.57	Millwrights	37	2,464	66.59
		-					

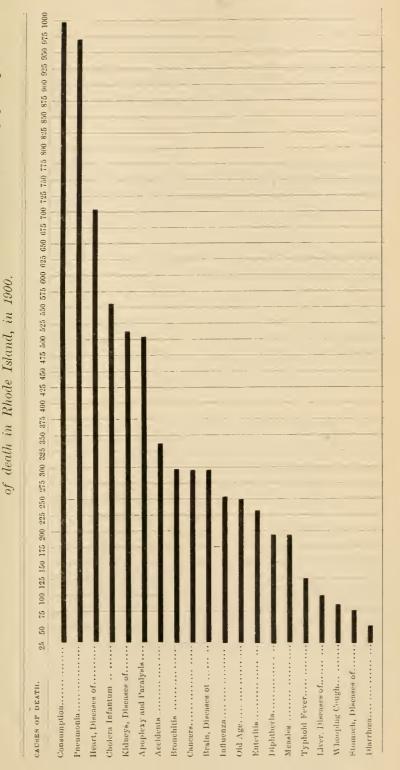
Table XCV.—Continued.

OCCUPATIONS.	Total Mortality.	Aggregate Ages.	Average Agc.	occupations.	Total Mortality.	Aggregate Ages.	Average Age.
Miners	18	1,018	56.56	NALES. Railroad Officials.	104	4.938	27.77.
Moulders	898	20.127	51.69	Refiners	16	729	45.56
Musicians	\$2	4,035	47.47	Riggers	33	1,854	57.00
Naval Officers	90	996	48.30	Roll Coverers	37	1,917	57.26
Nurses	28	994	55.23	Rubber Workers	198	8,330	42.07
Operatives	2,761	199,136	44.98	Sallors	818	15,351	48.27
Painters and Glaziers	1,042	50,821	48.78	Sea Captains	301	14,410	71.69
Paper Hangers	£	1,314	52.56	Servants	30	1,322	44.07
Peddlers	198	6,912	50.06	Sextons	13	813	62.54
Photographers, etc	30	1,433	47.77	Sheriffs and Policemen	141	8.712	61.79
Physicians	348	20,745	59.61	Ship Carpenters	32	5,868	69.04
Pilots	25 25	1,336	55.67	Silversmiths	133	5,929	44.57
Plasterers	29	2,856	18.41	Soldiers	157	4,872	31.03
Platers	Ξ	803	57.14	Steampipers	13	521	40.08
Plumbers	£	4.811	39.11	Stevedores	19	901	47.42
Polishers	94	2,077	45.15	Stewards	88	1,328	47.43
Pork and Meat Cutters and Packers	25	938	44.67	Stone Cutters, Marble Workers, etc	812	15,257	48.90
Porters	56	2.611	46.62	Students	88	2,008	55.85
Printers	311	12,158	56.95	Superintendents and Overseers	397	55,099	55.66
Public Officers	95	5,636	59.33	Switchmen. Gatemen, etc	₹	1,329	55.37
			-	٠	_		

# Table XCV.—Concluded.

OCCUPATIONS.	Total Mortality.	Aggregate Ages,	Average Age.	OCCUPATIONS.	Total Mortality.	Aggregate Ages.	Average Age.
Tailors.	465	25.785	55.45	FEMALES. Bookkeepers	18	538	80.83
Tanners and Curriers	61	3,896	63.87	Clerks and Saleswomen	46	1,272	27.65
Teachers and Professors	153	7,560	49.41	Cooks	59	3,125	52.97
Teamsters	738	34,009	46.72	Dressmakers and Seamstresses	395	15,946	40.37
Telegraph and Telephone Operators	57	731	30.46	Jewelers	30	564	28.20
Tinsmiths	144	6,940	48.19	Laboring	16	669	43.69
Tobacconists	15	874	58.27	Laundresses	51	2,536	49.72
Traders	883	14,259	50.39	Milliners	33	2,262	36.90
Tradesmen. General	185	8.919	48.21	Nurses	50	1,054	52.70
Undertakers	95	8,269	57.35	Operatives	1,112	35,305	31.75
Upholsterers	19	2.520	41.31	Physicians	=======================================	21-9	58.83
Waiters	133	5,396	40.57	Rubber Workers	53	899	29.04
Watchmen	300	11,471	57.35	Servants	583	27,803	47.69
Wheelwrights	117	7,061	60.35	Sisters of Mercy	88	1,531	40.39
Wire Workers	15	644	42.93	Tailoresses	150	7,010	46.73
Wood Turners	55	2,354	42.80	Teachers	259	13,057	40.41
Wool Sorters	7.0		49.25	Telegraph and Telephone Operators	10	599	29.90
Total	49.860	2,618,837	59.52	Waitresses	12	341	28.42
ł		-		Total	2,912	116,283	39.93
FEMALES.							
Boarding-house Keepers	56	1,626	62.54	Grand Total	52,772	2,735,120	51.83

Diagram III. Exhibiting the comparative mortality by absolute number of decedents, from twenty principal causes





## THE RETURNS OF THE MEDICAL EXAMINERS.

The number of deaths investigated by the medical examiners during the year 1900 was 529. These deaths resulted from sudden, suspicious, unknown, and violent causes. Of this number 393, or 74.3 per cent., were males; and 136, or 25.7 per cent., were females.

Homicide.—The number of deaths from homicide was 15, or 2.8 per cent. of the whole number investigated. Of the 15 cases of homicide, 2 were by stab wounds of abdomen, 1 by stab wounds of chest and abdomen, 1 by pistol-shot wound of abdomen, 1 by fractured skull in street row, 1 by multiple injuries, the result of violent assault on insane man by keeper, 1 by violence to neck and chest (unknown man found in a cellar). There were eight cases of infanticide, 1 suffocation by oil of cinnamon, 2 by drowning, and 5 by neglect and exposure. In only 2 instances of the cases of homicide were the assailants brought to trial, convicted, and sentenced.

SUICIDE.—The number of deaths by suicide reported by the medical examiners in 1900 was 59, or 11.1 per cent. of the whole number examined. Death was caused as follows: by drowning, 13; hanging, 13; cutting throat, 6; shooting in head, 8; gun-shot wound of lung, 1; gun-shot wound of neck, 1; by jumping from window, 1; illuminating gas, 1; strangulation, 1; by carbolic acid, 4; by cyanide potassium, 2; by paris green, 2; by opium, 3; by hydrocyanic acid, 1; by phosphorus, 1; by chloroform, 1.

Accidents.—The returns of the medical examiners show 258 deaths from accidents, specified as follows: asphyxia, 18; burns and scalds, 29; drowning, 63; electric car, 19; falls, 46; machinery, 7; railroads, 25; firearms, 4; illuminating gas, 5; poison, 10; electrical shock and burns, 2; elevator, 2; exposure to cold and storm, 4; run over by heavy teams, 4; kicked by horse, 2; thrown from teams, 3; 1 each by explosion of giant powder, by lightning, struck by falling coal, struck by base-ball, injury to leg by upset load of stone, stab wound of abdomen by seissors thrown by companion, slight injury to finger (septicamia following), injury to

foot by stepping on potato-digger (tetanus), injury to foot while at play (septicemia), crushed by boat falling upon him, crushed while unloading steel rails, crushed between team and telegraph pole, crushed by lumber in freight car, crushed between coal team and house, head crushed by falling bale of cotton.

Asphyxia, 18.—By bed-clothes and overlaying, 7; by food in larnyx, 2 (children); by illuminating gas, 6; by caving of sandbank, 2; by face in pillow while intoxicated, 1.

Burns and Scalds, 29.—In burning building, 6; by bonfire, 2; by clothes taking fire from stove, 8; by burning oil from lamp, 2; explosion of oil stove, 1; by burning clothes, self-ignited while intoxicated, 1; by clothes taking fire from lighted pipe in pocket, 1; by smoking in bed, clothing took fire, 1; by flames from burning wax, 1; by flames from furnace, 1; by falling into barrel or tub of hot water, 2; by pulling over dish of hot water from stove, 1; by falling into vat of boiling dye, 1; manner unknown, 1.

Drowning, 63.—Bathing or swimming, 19; through ice, 3; in wreck of schooner "Nausett," 4; overboard from boats, 7; by capsizing of boats, 2; by falling into water while playing on edge, 7; from wharf, 2; by falling into water during epileptic attack, 2; and 1 each by walking off bank into river while intoxicated, by falling into water in apoplectic seizure, into tub, while wading out to rock to fish, (child) in rock pond at park; 12 were found in water, circumstances of the drowning unknown.

Falls, 46.—From building or staging, 7; downstairs, 7; on ground or floor, 16; from team, 2; from window, 3; from hay-loft, 2; and 1 each from piazza, from fence, through scuttle, through trap-door, from trestle, into coal-pocket, into hold of vessel, in dry dock, and 1 unspecified.

Poison, 10.—By wood-alcohol, 4; by overdose of laudanum taken for relief of pain, 1; corrosive sublimate, 1; phosphorus, 1; by mushrooms, 1; by whiskey (unknown quantity drank from jug by child), 1; strychnine pills mistaken for candy, 1.

The whole number of deaths by accident in the State during 1900 was 336, showing that there were 78 deaths by accident where no medical examiner was called. In these cases a physician had been in attendance and had reported the cause of death. In many instances the death was not immediate.

The division of these 336 deaths by accident was as follows (see page 206 of this report): asphyxia, 29; bicycle, 1; burns and sealds, 33; drowning, 64; electric car, 19; elevator, 2; falls, 74;

firearms, 4; by insolation, 13; by lightning, 2; by machinery, 7; by poison, 15; by railroad, 27; various, 46 (pages 207 and 208 of this report).

A comparison of these figures with the cases of accidents which are viewed by medical examiners will show the cases which are more open to suspicion of avoidable violence. The difference (28) is more marked under the cause of falls.

Under sudden deaths which were investigated by medical examiners were as follows: alcoholism, 26; anæmia, 1; aneurism of aorta, 1; angina pectoris, 1; apoplexy and cerebral hemorrhage, 15; bronchitis, 4; cholera infantum, 2; convulsions of children, 3; eyanosis, 1; dysentery, 1; endometritis (septic) following abortion, 1; enteritis, 2; epileptic convulsions, 1; gangrene of genitals, 1; gastritis, 2; disease of heart, 51; heat, 7; hernia, 2; indigestion, 1; laryngitis, 1; malnutrition from improper feeding, 6; nephritis and Bright's disease, 16; old age, 2; tubercular peritonitis, 1; puerperal peritonitis following criminal abortion, 1; pneumonia, 12; pulmonary tuberculosis, 13; heart failure from tobacco habit, 1; acute rheumatism, 1; scarlet fever, 1; softening of brain, 1; ulcer (perforating) of stomach, 2; whooping cough, 1; natural unknown causes, 7. There were also 8 still-births.

Number and Per cent. of Each Group of Cases Viewed by Medical Examiners.—1894-1900.

YEARS.	Hom	icide.	Snie	side.	(	dent. or gence.	Unknow	ral and n Causes, Alcohol- n,	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Total.
1894	9	3.1	45	15.6	141	49.0	93	32.3	288
1895	6	1.7	31	8.5	223	61.4	103	28.4	363
1896	1	0.3	27	8.3	177	54.3	121	37.1	326
1897	12	3.4	32	9.2	157	45.1	147	42.8	348
1898	12	3.1	41	10.7	203	53.0	127	33.2	383
1899	15	3.2	39	8.4	214	45.8	199	42.6	467
1900	15	2.8	59	11.2	258	48.8	197	87.2	529



## APPENDIX A.

## NOMENCLATURE OF DISEASES,

OR

CAUSES OF DEATH.



## NAMES OF CAUSES OF DEATH.

It should be stated that the nomenclature of diseases in the nosological arrangement on the following pages is not intended to include the names of the whole list of morbid phenomena affecting the human organism, but the names of such only as are directly the cause of death, or such as ordinarily predispose to or set in motion the morbid processes that end in death.

The classification which has appeared in the previous issues of this report, and which was the result of a report of the committee of the Royal College of Physicians of England, has been modified to accord with the changes which have taken place in our knowledge of the pathological causation of diseases since that classification was made.

The changes which have been made apply more especially to Group One, the title of which has been changed from Miasmatic to Communicable, and has absorbed all of Group Two, which was known as the Enthetic group. This included glanders, gonorrhea, hydrophobia, malignant pustule, septicamia, and syphilis, all of which are at the present day considered as communicable diseases, and probably dependent upon a morbific entity which in some of these diseases has been demonstrated.

In Group Two delirium tremens has been dropped to the supplementary list, being but a symptom or a result of the condition of alcoholism, which, while not strictly correct, is yet more comprehensive in covering this class of causations.

Apthæ, worms, and other parasites should be classed as communicable, the parasites being of a higher order than those producing diphtheria and cholera, and are dropped from this class.

As dropsy is a result or symptom rather than an immediate cause of death, it has been left out.

Gangrene, occurring in old age, has been transferred to the group Developmental Diseases of Old Age. Other conditions where gangrene is found have been traced satisfactorily to traumatisms, or diseases of the circulatory system.

In Class III, in the group of diseases of the Nervous System, cephalitis has been dropped as being obsolete. Convulsions has been transferred to the group of Developmental Diseases of Chil-

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dren, all such deaths having been found to be within these age periods.

From the group of the Respiratory System pneumonia has been transferred to the list of Communicable diseases.

In Group Four, of the Digestive System, appendicitis has been introduced as being a sufficiently distinct and frequent disease, and concerning which statisticians will desire information as to the mortality therefrom. Peritonitis, being a sequel of a traumatic or a septic condition, is usually traceable to a primary cause if inquired into. When no specific cause is obtainable it is placed under Causes Ill-defined. Ascites, being a secondary cause, is relegated to Causes Ill-defined, unless the original cause of the ascites can be ascertained. Hernia is retained in this group, rather than in the group of Accidents and Negligence. Other new diseases which are introduced into this group, as being now more specifically diagnosticated, are obstruction of the bowels, colitis, entero colitis, diarrhea, dysentery, gastro enteritis, and gall-stones which is retained for want of a more definite term which shall express the conditions causing the formation of the gall-stones -and acute gastritis.

Under diseases of the Urinary System, the word nephria is omitted, the term Bright's disease being retained in the absence of the ability or practicability of the ordinary diagnostician to be able to distinguish the different forms of nephritis, or blood changes or other causes giving rise to the presence of albumen in the prine. Diabetes is divided into the two forms of mellitus and While perhaps belonging to the group of nervous disinsipidus. eases, yet it is not yet sufficiently well explained to prove in which group it might be placed, and custom in this case is allowed to prevail. Diseases of the testicles has been omitted as it has, by experience in this department, been found to be dependent upon some pathological change, such as neoplastic formations or traumatic or septic conditions, and the primary cause usually finds its way into these groups. Uramia is placed in the primary group as being expressive of the direct location of the disease, although not being specific as to the causation.

Under diseases of the Generative System we are at the present day able to specify more accurately the condition present, owing to the increased knowledge required of the gynecologist. Ovarian dropsy is therefore dropped, and ovarian tumor, diseases of the uterus, and pyosalpinx are submitted as subdivisions. This group will probably be enlarged as physicians become better educated in specific diagnosis in this special department.

As still-births are classified by themselves they are removed from the group of Developmental Diseases of Children. To INDEX. 299

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